BUSINESS MEETING

BEFORE THE

CALIFORNIA ENERGY RESOURCES CONSERVATION

AND DEVELOPMENT COMMISSION

In	the	Μa	tter	of:		
Bus	sines	ss	Meeti	ng		

CALIFORNIA ENERGY COMMISSION

HEARING ROOM A

1516 NINTH STREET

SACRAMENTO, CALIFORNIA

WEDNESDAY, MARCH 25, 2009 10:03 A.M.

Reported by: Peter Petty

Contract Number: 150-07-001

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

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COMMISSIONERS PRESENT

James D. Boyd, Vice Chairperson

Arthur Rosenfeld

Jeffrey D. Byron

Julia A. Levin

STAFF PRESENT

Melissa Jones, Executive Director

William Chamberlain, Chief Counsel

Harriet Kallemeyn, Secretariat

Dale Rundquist

Thom Kelly

Suzanne Korosec

Sylvia Bender

Bill Pennington

Valerie Hall

Jim Folkman

Joe O'Hagan

Norm Bourassa

Marla Mueller

Mike Smith

Larry Smith

Derek Davis

Atlas Hill

PUBLIC ADVISER

Elena Miller

ALSO PRESENT

Melissa Foster, Attorney Stoel Rives, LLP

Gary Chandler, President Apex Power Group, LLC

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PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

1	PROCEEDINGS
2	10:03 a.m.
3	VICE CHAIRPERSON BOYD: Good morning,
4	everybody. Welcome to the March 25th business
5	meeting of the California Energy Commission. As
6	you may note, the Chairman, at the last minute, is
7	unable to be here today, but we have a quorum and
8	business will go on.
9	The Chairman is over in the Governor's
10	Office handling some issues with them for us, so
11	we'll carry on.
12	Please join me in the Pledge.
13	(Whereupon, the Pledge of Allegiance was
14	recited in unison.)
15	VICE CHAIRPERSON BOYD: Thank you, and
16	thank you all for being here.
17	Just to reference the agenda, it's my
18	understanding there are no agenda changes, so we
19	can move right into the agenda as printed.
20	So, first item is the consent calendar.
21	COMMISSIONER ROSENFELD: I move the
22	consent calendar.
23	VICE CHAIRPERSON BOYD: There's a
24	motion.
25	COMMISSIONER LEVIN: Second.

1	VICE CHAIRPERSON BOYD: There's a
2	second.
3	All in favor?
4	(Ayes.)
5	VICE CHAIRPERSON BOYD: Any opposed?
6	None. The consent calendar is approved four to
7	nothing. Thank you.
8	Item number 2 oh, okay, we're going
9	to get into language problems. Panoche or
10	Panoche, depending upon your personal dissuasion,
11	perhaps, or persuasion.
12	Possible approval of Panoche Energy
13	Center, LLC's petition to amend their final
14	Commission decision. And I'll let staff give us
15	the details. Good morning.
16	MR. RUNDQUIST: Good morning,
17	Commissioners. My name is Dale Rundquist and I'm
18	the compliance project manager for the Panoche, I
19	say Panoche, Energy Center project.
20	On October 23, 2008, Panoche Energy
21	Center, LLC, the owner of Panoche Energy Center
22	project, submitted a petition requesting to modify
23	the proposed 2.5 acre PG&E substation expansion by
24	adding an additional 6.5 acres of prime farmland

25 to accommodate the installation of a new acre-and-

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1 a-half-plus configuration.
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6

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The Panoche Energy Center project will
be a 400 megawatt peaking power plant located
approximately 12 miles southwest of the city of
Mendota, and two miles east of interstate 5 on

Panoche Road in Fresno County.

construction process.

- The project was approved by the

 California Energy Commission on December 19, 2007.

 And it is approximately 65 percent complete in the
- The amended farmland mitigation
 agreement is expected to be finalized next month.
 The project owner will pay additional fees to the
 San Joaquin River Parkway and Conservation Trust.
 This change is based upon information
- that was not available to the parties prior to the Commission decision.
- The proposed substation expansion is

 needed to accommodate several interconnection

 design changes and reliability improvements that

 were identified by PG&E after the California

 Energy Commission's final decision was issued.
- 23 Staff recommends approval of the staff-24 revised petition.
- 25 VICE CHAIRPERSON BOYD: Thank you. Do

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1 we have representatives of the applicant here to
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- 2 speak to the item?
- MS. FOSTER: Yes. Good morning,
- 4 Commissioners. My name is Melissa Foster with
- 5 Stoel Rives, on behalf of the project owner,
- 6 Panoche Energy Center.
- 7 MR. CHANDLER: Good morning. My name is
- 8 Gary Chandler. I was the developer of the
- 9 project, and I'm here representing the owner. I
- 10 appreciate we didn't get into a discussion on
- 11 names again. We went through that for --
- 12 (Laughter.)
- 13 COMMISSIONER ROSENFELD: Why don't you
- just rule what it's called?
- MR. CHANDLER: Pardon me?
- 16 COMMISSIONER ROSENFELD: Why don't you
- just tell us what to call it?
- 18 MR. CHANDLER: Well, we call it Panoche
- 19 because the road is West Panoche Road.
- 20 COMMISSIONER ROSENFELD: Okay.
- 21 VICE CHAIRPERSON BOYD: It is now
- 22 Panoche.
- 23 (Laughter.)
- 24 VICE CHAIRPERSON BOYD: Anything more
- 25 you'd like to say on the item?

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1 MS. FOSTER: No. We concur with Mr.
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- 2 Rundquist.
- 3 VICE CHAIRPERSON BOYD: Commissioners,
- 4 any questions?
- 5 COMMISSIONER BYRON: Well, yes.
- 6 VICE CHAIRPERSON BOYD: Commissioner
- 7 Byron.
- 8 COMMISSIONER BYRON: We reviewed this in
- 9 the Siting Committee and I'm going to, of course,
- 10 recommend that my fellow Commissioners approve
- 11 this item.
- 12 But, you know, I've seen these kinds of
- things come up in projects before. This is
- 14 another six and a half acres that's taken out of
- farming. And I mentioned this to someone
- 16 yesterday in our government that was quite
- 17 concerned about this because it continues to
- happen. But this is progress, I suppose.
- 19 These last-minute kind of surprises,
- 20 you're 65 percent through construction, and we go
- 21 to a breaker and a half kind of design now on the
- 22 substation. This was not known at the time of the
- 23 start of construction, correct?
- 24 MR. CHANDLER: It was not known, no.
- We, in our discussions with PG&E at that time we

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1 had 2.5 acres and that was what we expected them
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- 2 to do. But I think, as Mr. Rundquist indicated,
- 3 as they began reviewing the substation and looking
- 4 at how they could improve the substation
- 5 reliability and make it a better, long-term
- 6 substation, they determined that was more fitting
- 7 to expand it to 9 acres rather than 2.5.
- 8 COMMISSIONER BYRON: Um-hum. Yeah, I've
- 9 experienced this, myself, of course. These
- 10 October surprises or end-of-year surprises are a
- 11 bit of a problem for projects. I'm glad you're
- 12 able to accommodate it. I won't press you more on
- 13 the details. I do appreciate your being here
- 14 today. And I'd like to move the item.
- 15 COMMISSIONER ROSENFELD: Second.
- 16 VICE CHAIRPERSON BOYD: There's a
- motion and a second.
- 18 All in favor?
- 19 (Ayes.)
- VICE CHAIRPERSON BOYD: Opposed? None.
- 21 The motion carries four to nothing.
- 22 Congratulations and thank you. Good luck on --
- 23 COMMISSIONER BYRON: Yes.
- MS. FOSTER: Thank you very much.
- 25 VICE CHAIRPERSON BOYD: Agenda item

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1 number 3. Public Interest Energy Research or
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- 2 PIER's annual report. Possible approval of the
- 3 PIER 2008 annual report to the Legislature. Mr.
- 4 Kelly.
- 5 MR. KELLY: Thank you, Commissioners.
- 6 Back in '96 the Legislature created the California
- 7 Electricity Experiment. And at the time gave the
- 8 Energy Commission authority to spend public
- 9 interest monies on public interest research and
- 10 development that the market simply is not designed
- 11 to respond to. So, if the market won't do it,
- somebody has to do it, and the Energy Commission
- 13 was asked to provide this public interest R&D.
- 14 The Legislature requires us every year,
- in return for giving us this money to administer,
- 16 requires that we report to them a whole host of
- items. We have to let them know what funding
- 18 awards we made during the year. We have to tell
- 19 them the progress that these helped make towards
- goals.
- 21 We have to name the people and the
- businesses who receive the awards. We have to
- 23 talk about the actual kinds of projects that we
- 24 funded.
- They want to know what the cost and

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benefits are for what these research is achieving
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- 2 for California. And they also ask us for
- 3 recommendations for program improvement where we
- 4 see it's needed.
- 5 And this report does all of these
- 6 things. It satisfies the legislative requirement,
- 7 and it gives more information than they ask for.
- 8 What we've -- we report on the different
- 9 categories of research. We look at energy
- 10 efficiency and demand response. We look at
- 11 renewables. We look at clean, new generation. We
- 12 look at transmission and distribution
- improvements. We look at transportation. And we
- 14 look at energy-related environmental research.
- These categories are the ones that are used to
- 16 report to the Legislature on our progress.
- 17 In this particular annual report what
- 18 we've added is some, a strategic view. We list
- 19 and enumerate the strategies that we pursue to try
- to make sure all the good R&D is done, the most
- important that we can find following energy
- 22 policy. And we also ask for, from the staff, and
- the Committee has required us to add some forward-
- looking components: Why are we doing some of the
- 25 research we're doing in each of these areas. It's

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1 not just happenstance, it's by design. That's
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- 2 included in this annual report, as well.
- 3 It encompasses some 141 new projects.
- 4 This is on top of over 400 ongoing projects that
- 5 the staff has. And it's quite a lot. And it all
- is trying to do the best public service we can for
- 7 the \$82.5 million of electricity and natural gas
- 8 research that's ongoing.
- 9 So, we give you the report. Oh, I
- 10 should please take a moment to introduce Steve
- 11 Williams, for those of you who may not know Steve.
- 12 He's our principal author for this report. And
- he's done more than yeoman duty for the Committee.
- 14 VICE CHAIRPERSON BOYD: Thank you.
- 15 Thank you, Mr. Williams, for your contribution.
- 16 Let me make a couple of comments, if I might, on
- 17 behalf of myself and the Chairman, who constitute
- 18 the, at the present time, the Research Committee.
- 19 And just comment to the fact that over
- 20 the last couple of years quite a bit of effort has
- 21 been made to continually, let's just say, expand
- 22 and improve the report in response to concerns
- that have been expressed by some of the readers
- and recipients that they're not getting enough out
- 25 of it.

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So I think last year's report was better
 1
         received. And I am trusting very much that this
 2
         year's report will even be more better received.
 3
 4
                   One thing that was asked for by the
 5
         Committee at the very last minute was the
 6
         insertion of a couple of figures. And I have
         distributed both of them to my fellow
         Commissioners. We don't see these as significant
 8
         changes requiring any kind of formal errata or
         what-have-you. This is a report for the
10
11
         Legislature. But it was just an attempt, let's
         just say, to take readers through the process.
12
13
                   I mean research does involve taking, as
14
         Mr. Kelly has mentioned, a concept from basic
         research phase all the way to commercialism. And,
15
         you know, we do try to see that people get walked
16
         through the valley of death, as it's called, the
17
18
         investment valley of death, as much as possible.
19
                   And, you know, this whole process
20
         involves a great many investment steps along the
21
         way. It takes many years. People have difficulty
         comprehending that. They want to see an
22
         investment and then they want to see a return
23
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25 So this figure 2.1, as it's called, is

pretty quickly.

1 an attempt to kind of show what the steps are, and

- 2 who perhaps some of the recipients are. So this
- 3 is a change that will be made in the report before
- 4 it's distributed to the Legislature.
- 5 The second thing I would like to say,
- 6 that is in spite of the improvements we've made to
- 7 this report, and the report has -- the statute has
- 8 specific criteria on what the Legislature wants to
- 9 see -- we've continued to have concerns, questions
- and criticisms, and even a couple of legislative
- 11 hearings, delving into our program.
- 12 And last year there was a recommendation
- made by the Committee that we needed to produce
- 14 another document that would explain the program in
- 15 more lay terms, if I can use that term. And would
- demonstrate some of the successes.
- I mean we start, we carry through the
- 18 process, and we've had wins, I guess I would call
- 19 them. And so the staff has been working mightily
- 20 to produce such a document. And actually a few
- 21 minutes before today's meeting I was handed the
- final draft. I've been through many drafts.
- 23 It was our desire, as a Committee, that
- 24 this document may be done in time to accompany the
- 25 more legislatively directed report, such that they

would receive the package and hopefully would

- begin to explain to those who haven't had enough
- 3 time to spend time with our research program, what
- 4 it is we're about and some of the really good
- 5 successes we've had.
- 6 So I am pleased to say that when we
- 7 presumably approve this report today for
- 8 distribution to the Legislature, we will also be
- 9 able to send this other document along.
- 10 So I would just commend all the staff
- 11 involved, both the research staff and Ms. Jones'
- 12 staff, our public information folks and what-have-
- you, for the herculean effort they've put into
- 14 putting this together and working with the
- 15 Committee and accepting our suggestions and
- 16 recommendations for additions, corrections and
- 17 hopefully improvements. So, that's another first.
- 18 Lastly, I'd just like to just kind of
- 19 make some personal, well not exactly personal,
- 20 observations, but a) as a long-time member of this
- 21 Commission now, b) as a member of the Research
- 22 Committee, and also as Chairman of the State's
- 23 Climate Action Team's research and development
- 24 subgroup for some time now, I've been exposed to
- an awful lot of research activities in the state.

1	It's, of course, been very interesting
2	to see what other state organizations do, as they
3	approach the research subject. And, I'm kind of
4	pleased to say that this organization and the PIER
5	program are used as an example by many other
6	agencies of a way that research should be
7	approached and carried out.

And as we accomplish better coordination and consolidation of just the climate research, the overall PIER program has proven to be a guidepost for other agencies on how they might carry out research.

We are fortunate, more fortunate than many, to have a very sizeable research program, which is why the organization here set up the program that it has.

It's also been interesting for me to note that long before there was the infamous loading order, which is what guides this agency and the PUC, I call it the Magna Carta, between the two agencies. But --

22 COMMISSIONER ROSENFELD: And you 23 shouldn't call it infamous.

24 VICE CHAIRPERSON BOYD: You're correct.

25 I misused that word. The very famous loading

order. In any event, if you go back through the

- 2 annals of this organization you'll find the PIER
- 3 program was concentrating years ago on research
- 4 that was consistent with the goals and objectives
- 5 that that loading order lays out.
- 6 So, the organization has known what
- 7 needs to be done; has perhaps too silently carried
- 8 on a lot of that work. And we turn out being
- 9 quite consistent in our IEPR recommendations with
- 10 what turns out to be the needed policy of the
- 11 state. And there's always been a floor of
- 12 research provided by this organization under those
- 13 policies.
- 14 So while there's been a lot of criticism
- 15 of certain aspects, some of them administrative,
- some of them just lack of marketing, overall I
- think everybody here should be proud of the
- 18 program that's carried on.
- 19 And what I've seen in my term here, the
- 20 total integration, the knocking down of all the
- 21 stovepipes that might have existed between
- 22 research and the core programs of this agency such
- 23 that research supports the core program, supports
- 24 the major goals and objectives of the state energy
- 25 program, as reflected in the IEPR and certainly as

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1 reflected in the loading order.
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- So, I'm hoping this is the -- we've
 reached the summit in terms of explaining our
 program, reports on our program. And I'm looking
 forward to hopefully some positive feedback from
 the Legislature.
- But I would just say, kind of in

 closing, that it's incumbent upon us to recognize

 the need to market that which we do. And

 constantly provide, you know, take-away examples

 for people of the positive accomplishments that

 are accomplished through R&D.
- I mean R&D is just that, research and development. And you don't win them all.

 Unfortunately, in the public sector they expect you to win them all. They expect you not to invest in anything that doesn't win. But then it's not really research.
- So, we've had a pretty good -- an
 awfully good track record of success. We just
 haven't talked about it enough. Well, maybe we've
 crossed that threshold now.
- 23 So I commend the staff for what they've 24 done, and for developing what I hope becomes a 25 famous report and track record for this agency.

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1 So, thank you for allowing me this extra time to
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- 2 talk about the document.
- 3 EXECUTIVE DIRECTOR JONES: Commissioner
- 4 Boyd, --
- 5 VICE CHAIRPERSON BOYD: Yes.
- 6 EXECUTIVE DIRECTOR JONES: -- if I might
- 7 add, we're not stopping at the report that you
- 8 have today in terms of a layperson's document.
- 9 We're looking at preparing a document such as you
- 10 have today for each of the different program areas
- 11 within PIER.
- We're going to be looking at the
- 13 buildings area since we have so many successes in
- 14 that area. And since our research directly feeds
- into our appliance and building standards. So
- 16 that's the next installment that you can expect to
- 17 see.
- 18 VICE CHAIRPERSON BOYD: I'm pleased to
- 19 hear we've got religion.
- 20 Any questions or comments?
- 21 COMMISSIONER ROSENFELD: A comment. I
- think Commissioner Boyd has made a very convincing
- case, so I won't -- and Melissa's adding to it --
- so I won't say any more than that, other than I
- 25 think it's high time to commend the staff again

for both the report and this draft lay document,

- which is going to have children apparently.
- And I move the item.
- 4 VICE CHAIRPERSON BOYD: Thank you.
- 5 Commissioner Byron.
- 6 COMMISSIONER BYRON: If I may take a
- 7 moment to comment, as well, just in the interests
- 8 maybe of full disclosure. I was at the Electric
- 9 Power Research Institute when AB-1890 passed. And
- I was in a meeting with the president of the
- institute and the senior vice president of
- 12 research the next day.
- 13 And the immediate response to AB-1890
- 14 was not so much the concern about the deregulation
- of the industry, it was that EPRI now had a
- significant competitor to the job that they do.
- 17 And the immediate response was to clamp down,
- 18 no contact with the Energy Commission except
- 19 through his office at that point.
- 20 And I think that's softened and
- 21 obviously changed. But it helps to explain in my
- 22 mind maybe why there's a bit of a, I don't know, a
- jaundiced approach to EPRI -- I'm sorry, to the
- 24 research that's done here at this Commission.
- 25 It's a threat. It's a threat to many

1 organizations. It's a threat to -- threat may be

- 2 too strong a word -- but there's competition as a
- 3 result of this.
- 4 I think I came to this agency somewhat
- 5 concerned about whether or not these funds are
- being spent appropriately and the if the research
- 7 is being done well by qualified people. And I
- 8 have to say that I'm very convinced that it is. I
- 9 appreciate the staff's trying to map out the
- 10 course that it has to take, that the Legislature
- 11 lays out and then changes periodically, if not
- often, makes it almost impossible to do, to set up
- good research programs. They need continuity,
- 14 they need some length of time to develop.
- 15 I'd very much like to commend the staff.
- I think we've reached just about the \$600 million
- 17 mark now. And I think there's tremendous success
- 18 to point back at. And we all know the Legislature
- is going to continue to make it challenging to do
- 20 research. I think the staff does a commendable
- 21 job.
- 22 Having spent ten years at EPRI or
- 23 thereabouts, I can tell you that you do it as well
- or better than EPRI does. And so, I'd very much
- like to commend the staff.

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I'd like to thank you, Mr. Kelly, for
 1
         taking the time to come up and brief me on this
 2
         report. And I take great pleasure in seconding
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 4
         it. And would be more than happy to go over to
 5
         the Legislature and explain to them why I think
 6
         this work is valuable and that we need to continue
         it.
                   VICE CHAIRPERSON BOYD: All right.
 8
         There's been a motion and a second. Some very
         nice words by both Commissioners, which I much
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appreciate. I would just say before calling for the vote that the title of the lay document, as I have called it, is a Decade of Advancing California Technology. It's an attempt to catch up on this marketing program.

And I guess it's our hope in future years this kind of information will just be integrated into the annual report, and each year we'll give everybody the box score on how we've advanced California technology within the framework of the annual report.

22 So, with that I'll call for the vote.

All in favor? 23

24 (Ayes.)

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25 VICE CHAIRPERSON BOYD: Opposed, none.

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1 Approved three to nothing. Very good work.
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- 2 Congratulations. And, of course, that means we
- 3 expect more and better next year.
- 4 All right. Item number 4, Gas
- 5 Technology Institute. Possible approval of
- 6 contract 500-08-037 for \$490,000 with the Gas
- 7 Technology Institute. I'll let Mr. Kerry --
- 8 Kelly, excuse me, explain the whys and where-ofs.
- 9 Mr. Kelly.
- 10 MR. KELLY: I've been called Tom Murphy,
- 11 too.
- 12 (Laughter.)
- 13 MR. KELLY: This project is a very
- 14 interesting one, especially to me. It takes toxic
- gases out of a waste heat stream that otherwise
- was going to be useless.
- 17 You can't use it; it's so harmful that
- 18 you can't really put turbines or anything on the
- 19 end, because it wears them out too much. The cost
- 20 is just too great. Besides, it has a lot of bad
- 21 stuff in it like chlorine.
- 22 So the scientists came up with a way of
- 23 simply putting little sodium pellets, not little,
- 24 but specially constructed sodium pellets, to let
- 25 the waste heat flow over that. It takes the bad

1 stuff out of it, and then is useful after that for

- 2 anything you want to, including just heating or
- 3 electricity generation.
- 4 This is -- in the aluminum re-smelting
- 5 industry this natural gas cost is something like
- 6 15 percent of the total operating cost. So that's
- 7 a significant hunk. And this will clean up the
- 8 waste heat to the point that it's about 25 percent
- 9 savings have been estimated.
- 10 When this goes into effect we think it's
- 11 going to have huge market penetration potential
- 12 because it'll give a comparative advantage to
- somebody who can save that much money on their gas
- 14 bill, which is a significant part of their costs.
- 15 So, we've estimated it will save about a
- 16 half-a-trillion Btu annually in the state. And
- these are big savings. So, we -- the industry
- thinks it's such a big saving that we've managed
- 19 to leverage another \$470,000 of participating
- 20 money coming in to try to make this happen.
- 21 So we really like this project.
- 22 VICE CHAIRPERSON BOYD: Thank you, Mr.
- 23 Kelly. Before asking my fellow Commissioners -- I
- 24 would just add, in my responsibilities on the
- 25 Research Committee I did grill the staff pretty

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1 neatly on this project. Because aluminum re-
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- 2 smelting, you know, why are we going there. You
- 3 know, that's not a big deal in California.
- 4 And I learned it is a big deal in
- 5 California. There's a lot of re-melting
- 6 operations in the state. And you've heard the
- 7 rest of the story. So, any questions or comments?
- 8 COMMISSIONER BYRON: No.
- 9 COMMISSIONER ROSENFELD: I move the
- 10 item.
- 11 COMMISSIONER BYRON: Second.
- 12 VICE CHAIRPERSON BOYD: There's been a
- motion and a second.
- 14 All in favor?
- 15 (Ayes.)
- VICE CHAIRPERSON BOYD: Approved three
- 17 to nothing. Thank you, Mr. Kelly.
- 18 Item number 5, MRW and Associates, Inc.
- 19 Possible approval of amendment 1 to contract 150-
- 20 07-004 with MRW and Associates, Inc., adding
- 21 \$149,670 and a one-year time extension to assist
- in preparing, reviewing and analyzing the
- 23 Integrated Energy Policy Report Committee-directed
- 24 utility reports related to nuclear power.
- 25 And I'll stop there and let Ms. Suzanne

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1 Korosec explain the rest to us. Good morning.
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- 2 MS. KOROSEC: All right, thank you. I'm
- 3 sitting in today for Barbara Byron, who is the
- 4 contract manager. She is unfortunately in Denver
- 5 this week chairing the Western Interstate Energy
- 6 Board's high-level radioactive waste committee
- 7 meeting.
- 8 She asked me to convey her apologies for
- 9 not being here and said she'll be happy to answer
- 10 any questions you have --
- 11 VICE CHAIRPERSON BOYD: She doesn't have
- 12 to apologize.
- 13 (Laughter.)
- 14 VICE CHAIRPERSON BOYD: Barbara is a
- valuable asset.
- MS. KOROSEC: Yeah. We're asking for
- 17 your approval of an amendment to an existing
- 18 contract with MRW and Associates to add funding to
- 19 the contract, and also extend the contract for a
- 20 year so that MRW and Associates can assist the
- 21 Energy Commission in implementing recommendations
- from the Assembly Bill 1632 report that was
- 23 adopted last year with the 2008 Integrated Energy
- 24 Policy Report update.
- 25 AB-1632 required the Energy Commission

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to evaluate the vulnerability of the state's
nuclear plants to a major disruption due to a
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- 3 seismic event or plant aging; look at the impacts
- 4 of such a disruption; and the impacts of
- 5 accumulation of nuclear waste at the plants.
- 6 The 2008 IEPR update summarized the
- 7 recommendations in the AB-1632 report and directed
- 8 PG&E and SCE to report to the Energy Commission
- 9 starting in the 2009 IEPR on the status and
- 10 results of their seismic research at the plants;
- 11 updated review of tsunami hazards; evaluation of
- seismic vulnerability of the nonsafety systems
- 13 like electrical switchyards; and the status and
- 14 results of their license renewal activities.
- This amendment will allow MRW and
- 16 Associates to assist the Energy Commission in
- 17 reviewing and analyzing the utilities' reports on
- 18 those areas; summarizing lifecycle cost
- 19 assessments for nuclear generation; organizing and
- 20 participating in the 2009 IEPR workshop on nuclear
- 21 issues, which is scheduled for late July; and
- drafting sections of the 2009 IEPR, as needed.
- 23 With that I'll ask for your approval of
- 24 the item.
- 25 VICE CHAIRPERSON BOYD: Thank you. Any

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1 comments or questions from my fellow
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- 2 Commissioners.
- 3 COMMISSIONER BYRON: Just one quick
- 4 question. 1632, was that Assemblymember
- 5 Blakeslee?
- MS. KOROSEC: Blakeslee, yes, it was.
- 7 COMMISSIONER BYRON: Yes. Yes. I think
- 8 he has another piece of legislation pending again
- 9 this year on nuclear issues.
- No, I have no other questions, thank
- 11 you.
- 12 VICE CHAIRPERSON BOYD: He's not going
- 13 to let go of earthquakes, either, as it relates to
- 14 facilities.
- 15 COMMISSIONER BYRON: Yeah. Commissioner
- Boyd and I also ran into him last night and
- 17 chatted about this and other issues.
- 18 VICE CHAIRPERSON BOYD: Any other
- 19 questions? If not, a motion.
- 20 COMMISSIONER BYRON: I move the item.
- 21 COMMISSIONER ROSENFELD: I second it.
- 22 VICE CHAIRPERSON BOYD: There's been a
- 23 motion and a second.
- 24 All in favor?
- 25 (Ayes.)

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1 VICE CHAIRPERSON BOYD: Approved four to
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- 2 nothing, thank you very much.
- 3 Item number 6, Rice University James A.
- 4 Baker III Institute for Public Policy. Possible
- 5 approval of contract 800-08-001 for a \$150,000
- 6 three-year membership with the Energy Forum of
- 7 said institute for public policy at Rice
- 8 University.
- 9 And, of course, this membership
- 10 qualifies us for other opportunities, but I'll let
- 11 Ms. Bender explain that.
- MS. BENDER: Good morning,
- 13 Commissioners. I'm Sylvia Bender with the
- 14 electricity supply analysis division.
- 15 In 1996 the Baker Institute established
- the Energy Forum, a multifaceted policy program
- 17 that promotes original discussion and research on
- 18 energy-related challenges in the 21st century.
- 19 Staff is requesting approval for this
- 20 three-year membership with the Baker Institute's
- 21 Energy Forum for several reasons.
- The Baker Institute has developed a
- 23 natural gas basecase assessment that evaluates
- 24 producing basins, infrastructure, demand sectors
- and liquefaction or regasification potential

1	1		7 7
	around	the	WORLD

- This assessment examines both current conditions and provides a ten-year outlook. With some modifications this basecase model can serve as a useful complement to staff's work in the 2009 IEPR.
- Staff analyses for 2009 are focused on
 understanding several key emerging issues in the
 context of risk and uncertainty, rather than
 producing a natural gas assessment as in previous
 IEPRs.
- The Baker Institute membership will
 allow Commission Staff access to their natural gas
 modeling work, access to the interdisciplinary
 technical expertise of their faculty, and the
 opportunity to influence topics of analyses that
 are undertaken by the institute staff.
- The Electricity and Natural Gas

 Committee has approved this item, and I now ask

 for your approval for this membership.
- 21 VICE CHAIRPERSON BOYD: Thank you.
- 22 Questions, comments from Commissioners?
- 23 COMMISSIONER ROSENFELD: I move the
- 24 item.
- 25 COMMISSIONER BYRON: Second.

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1 VICE CHAIRPERSON BOYD: There's a motion 2 and a second.
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- 3 All in favor?
- 4 (Ayes.)

5 VICE CHAIRPERSON BOYD: There being none 6 opposed it's approved four to nothing, and thank 7 you. I never knew we'd be contracting with this 8 institute. I don't know how many times over the 9 years I've worked here, I've declined invitations 10 to attend the events at the Rice University 11 Institute, just saying, you know, just too busy, 12 too busy, even if you want to pay for it, too

But I've done the same thing with

Commissioner Rosenfeld and many years of

invitations to meet which his friend Steven Chu

down at Lawrence Berkeley. No, no, I'm just too

busy, I'm too busy. I think that was a mistake.

busy. And now we're contracting.

19 (Laughter.)

13

22

23

20 VICE CHAIRPERSON BOYD: In any event.

21 Item number 7, Kenneth B. Medlock, III, PhD.

Possible approval of contract 800-08-002 for

\$46,000 over a three-year period with said

24 gentleman of the same institute forum to provide

25 technical support. And I'll let Ms. Bender

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1 explain the rest.
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- 2 MS. BENDER: All right. I'll continue
- 3 on this one. This contract would allow Dr.
- 4 Medlock, who is the primary model architect of
- 5 their natural gas model at the institute, to make
- 6 modifications to that model to accommodate
- 7 specific Energy Commission requirements for a
- 8 basecase.
- 9 These modifications would include
- 10 additional granularity of demand nodes for Canada,
- 11 the western United States and California.
- 12 Dr. Medlock would provide all data and
- 13 results from the modified basecase to the
- 14 Commission Staff, including a natural gas price
- 15 forecast, price differentials between hubs, demand
- 16 estimates and price elasticities by sectors,
- including power generation. Estimates of LNG
- imports and pipeline flow amounts.
- 19 Impacts of CO2 regulation on natural gas
- 20 supply and demand are expected to be incorporated
- into their model in 2010.
- 22 The contract would allow Dr. Medlock to
- 23 present assumptions, inputs and results during
- 24 Commission-sponsored workshops and hearings for
- 25 the 2009 and 2011 IEPR cycles, as well as to

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1 prepare a written report in support of the IEPR
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- 2 process.
- 3 Again, the Electricity and Natural Gas
- 4 Committee has approved this item, and I ask for
- 5 your approval, as well.
- 6 VICE CHAIRPERSON BOYD: Thank you.
- 7 Questions, comments?
- 8 COMMISSIONER BYRON: None.
- 9 VICE CHAIRPERSON BOYD: A motion.
- 10 COMMISSIONER BYRON: I'll move the item.
- 11 COMMISSIONER ROSENFELD: And I'll second
- 12 it.
- 13 VICE CHAIRPERSON BOYD: There's a motion
- 14 and a second.
- 15 All in favor?
- 16 (Ayes.)
- 17 VICE CHAIRPERSON BOYD: Opposed, none.
- 18 It's approved four to nothing. Thank you. And,
- don't go anywhere, Ms. Bender, --
- MS. BENDER: One more.
- 21 VICE CHAIRPERSON BOYD: -- I see -- and
- 22 I'd just comment I sit with the Natural Gas and
- 23 Electricity Committee with Commissioner Byron as
- 24 chair. And we've been through exquisite detailed
- 25 briefings on these items in the past.

1	So, item number 8, Aspen Environmental
2	Group. Possible approval of work authorization
3	1910.002 for \$132,000 under contract 400-07-032
4	with Aspen Environmental Group for technical
5	support. And I'll stop there and let Ms. Bender
6	give us the details.
7	MS. BENDER: Okay, thank you,
8	Commissioner. This item is a work authorization
9	which comes under the division's umbrella
10	analytical capabilities improvement technical
11	support contract.
12	The work is in response to a 2007 IEPR
13	recommendation directing staff to review and
14	evaluate natural gas forecasting models to
15	ascertain which types of models or analytical
16	tools best match the Energy Commission's needs.
17	Under this work authorization Staff and
18	the technical consultants will first characterize
19	current and potential purposes for the natural gas
20	analysis that's done at the Commission.
21	Evaluation of at least four model platforms that
22	could achieve these purposes will then be
23	conducted.
24	The contractor will use a process

25

designed by staff specifically for evaluating the

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1 feasibility and usefulness of different modeling
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- 2 methodologies.
- 3 The contractor will be responsible for
- 4 obtaining licenses to review these for review
- 5 purposes; obtain a California dataset; and walk
- 6 staff through the models using California-specific
- 7 data.
- 8 A staff recommendation will follow based
- 9 on the results of the Aspen team evaluation and
- 10 staff input and findings.
- 11 We expect this entire review process to
- 12 take approximately seven months. And, again, the
- 13 Electricity and Natural Gas Committee has reviewed
- 14 this work and supported this work authorization.
- 15 So I hope that the full Commission will, as well.
- 16 VICE CHAIRPERSON BOYD: Thank you.
- 17 COMMISSIONER ROSENFELD: Sylvia, I have
- 18 a question for you.
- MS. BENDER: Yes, sir.
- 20 COMMISSIONER ROSENFELD: It's not clear
- on item 8 who's funding this.
- MS. BENDER: It's being funded out of
- our ERPA technical support contract. It's an
- 24 umbrella technical support contract. This is one
- 25 work authorization among many that will come under

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1 that contract.
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- 2 VICE CHAIRPERSON BOYD: Any other
- 3 questions? Commissioner Byron.
- 4 COMMISSIONER BYRON: Perhaps I should
- 5 have said this at the beginning of these three
- 6 items. Clearly they're all related. And as
- 7 Commissioner Boyd indicated, we did review these
- 8 in some detail in the Electricity and Natural Gas
- 9 Committee.
- 10 And I think this is primarily in
- 11 response to our interest in seeing the staff
- improve its capabilities, gain a better
- 13 understanding of what's going on in this complex
- 14 natural gas market. And gain access to some of
- 15 that expertise elsewhere.
- Of course, we're also anticipating that
- 17 this will make our staff better informed and
- 18 smarter, so that they will be able to do their
- analysis with some more confidence in detail.
- Of course, all this forecasting, I'm
- 21 always reminded, you never get forecasting right.
- But we do want to be as knowledgeable about this
- as we can. A lot of folks look to us when prices
- go up and when prices go down, and wonder why we
- 25 didn't get it right.

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1 But it is an extremely complicated
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- 2 market, and these are all related to improving the
- 3 staff's knowledge and understanding so we can do
- 4 our job better.
- 5 So, I believe it's been forwarded. If
- 6 not, I will move this item for approval.
- 7 COMMISSIONER ROSENFELD: Second.
- 8 VICE CHAIRPERSON BOYD: There's a motion
- 9 and a second.
- 10 All in favor?
- 11 (Ayes.)
- 12 VICE CHAIRPERSON BOYD: Opposed, none.
- 13 So it's approved four to nothing. Thank you,
- 14 Sylvia.
- 15 Item 9, California Commissioning
- 16 Collaborative. Possible approval of contract 400-
- 17 08-005 with the California Commissioning
- 18 Collaborative for \$50,000. Mr. Pennington, if you
- 19 will explain the details.
- MR. PENNINGTON: Good morning,
- 21 Commissioners. My name is Bill Pennington; I'm
- the manager of the high performance buildings and
- 23 standards development office at the Energy
- 24 Commission, and I'm pleased to bring this item
- 25 before you today.

The purpose of this contract is to allow
the efficiency and renewable energy division to
maintain its membership on the California
Commissioning Collaborative, board membership, and
make a contribution to the total budget of the

collaborative.

So basically we can keep our eye on their work and influence the whole portfolio that they manage with contributions from all of the IOUs and SMUD and the U.S. Department of Energy and the California Department of General Services.

Our particular interest is making sure that we accomplish building commissioning that is in support of and helps to extend doing building commissioning in newly constructed buildings in support of our building standards.

We have what we call acceptance requirements in the building standards that are protocols for testing the correctness of the installation of energy efficiency equipment and controls that often are subject to defects in their installation, particularly in commercial buildings. And that's kind of a sort of a first step of doing commissioning for the whole building.

And so we were active in forming this 1 2 organization many years ago because of a strong interest in promoting building commissioning in 3 4 new buildings. And doing that through our 5 standards, as well as working with the industry. 6 And so we're able, through this process, to steer our money and oftentimes more money towards support for building standards and support 8 for better training of the industry related to the 10 acceptance requirements in the building standards. 11 So I request your approval. VICE CHAIRPERSON BOYD: Thank you, Mr. 12 13 Pennington. Any questions or comments from the 14 Commissioners? COMMISSIONER ROSENFELD: Commissioning 15 has been a great success, and I move the item. 16 VICE CHAIRPERSON BOYD: There's a 17 18 motion. COMMISSIONER LEVIN: Second it. 19 2.0 VICE CHAIRPERSON BOYD: And a second. All in favor? 21 (Ayes.) 22 VICE CHAIRPERSON BOYD: Opposed, none. 23

congratulations.

It's approved four to nothing and very good,

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1 Item number 10, Building Media,
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- 2 Incorporated. Possible approval of contract 400-
- 3 08-004 for \$497,000 with Building Media,
- 4 Incorporated, to develop the California Energy
- 5 Standards Online Learning Center. And I'll let
- 6 Mr. Pennington elaborate.
- 7 MR. PENNINGTON: Thank you. This is a
- 8 contract that implements a grant award that we
- 9 received from the U.S. Department of Energy to
- 10 conduct this particular work using this particular
- 11 contract capability, this particular contractor.
- This was a competition that we were
- 13 involved in with the rest of the states in the
- 14 U.S. There were six awards. The maximum award
- was \$500,000 per state. You know, there were
- smaller awards in some cases. So we were awarded
- 17 the maximum amount.
- 18 The purpose really of this special grant
- 19 area is to advance state of the art building
- 20 energy efficiency standards, and to promote as
- 21 much as possible the enforcement and compliance
- 22 with those standards.
- So in the past there's been a national
- 24 interest in having advanced standards and having
- 25 states adopt advanced standards. And there's a

1 growing awareness that it's critical to be placing

- 2 strong attention on achieving compliance with
- 3 those standards.
- 4 And so in the past we've been successful
- 5 in previous kinds of training awards and that sort
- of thing. We're recognized for being innovative
- 7 in the area of training. And this is sort of a
- 8 next step for everyone.
- 9 We have, in the past, developed videos
- 10 that helped train specific aspects of the
- 11 standards. And we have worked with this
- 12 contractor in the past, Building Media, Inc., to
- do those videos. And they've done a tremendous
- job for us.
- They have some particular people that
- 16 have very skilled training at presenting on
- 17 videos, people that were involved in This Old
- 18 House-level of delivery. And they also are very
- skilled at production of video. They have a very
- 20 good team; they have a very strong ability onsite
- 21 to deliver video production.
- 22 And so we're really pleased to be
- 23 working with them again. This particular online
- 24 training center will provide a access,
- 25 particularly by building officials, to modules

1 that explain the standards and break the standards

- down into information that's particularly suited
- 3 to the plan checkers or the field inspectors or
- 4 the counter staff at building departments. And
- 5 provide the information in easy-to-digest pieces
- 6 that can be reviewed remotely by building
- department staff to gain knowledge about the
- 8 standards.
- 9 And we've discussed this approach with
- 10 CALBO, the California Building Officials
- 11 Association. They're enthusiastic about this.
- 12 They see it as a breakthrough for getting
- information to building department staff.
- 14 So we're very enthusiastic about getting
- 15 started with this work and think it will be a very
- 16 good thing to do.
- 17 VICE CHAIRPERSON BOYD: Thank you.
- 18 Questions, comments?
- 19 COMMISSIONER BYRON: A quick question,
- 20 if I may. My father was a building official, ran
- 21 the department for the city that I grew up in.
- 22 And as I read through this I think about the
- training that it provides and it sounds, Mr.
- 24 Pennington, as though it's extremely valuable and
- 25 needed.

1	But what prompts them to go watch this?
2	You know, what I have to do online training
3	here as a state employee, as I suspect you do,
4	also, and I have to do it. Because when I get to
5	the end and the box is checked, and then I'm
6	approved for that training.
7	MR. PENNINGTON: Right.
8	COMMISSIONER BYRON: How do we
9	accomplish that same kind of have-to-look-at-these
10	kind of goal.
11	MR. PENNINGTON: Through a variety of
12	things, I think. First off, this training will
13	track a person through the content. And they will
14	get a exam and they'll be given feedback on each
15	element. And at the end they would be granted a
16	certificate for accomplishing that, that can be a
17	credential that they can use in their advancement
18	through their promotional structure within
19	building departments.
20	CALBO maintains a state-required

certification program for building officials to 21 maintain currency with building code requirements. 22

23 COMMISSIONER BYRON: Good.

24 MR. PENNINGTON: In the past energy has not really gotten very high on their radar in 25

1	terms	of	importance	in	that	system.	And	we	're

- 2 expecting that this program will help them raise
- 3 that importance and that we will have
- 4 certification through their kind of statewide
- 5 certification program as a result of working on
- 6 this, too.
- 7 COMMISSIONER BYRON: Well, I applaud
- 8 your efforts to continue to try and improve upon
- 9 the lack of, I should say, compliance that we're
- seeing. And so this is another way to do that.
- 11 So I hope it works well, it seems like a very good
- 12 idea.
- 13 VICE CHAIRPERSON BOYD: Any other
- 14 comments or questions?
- 15 COMMISSIONER ROSENFELD: Just to add
- that with the stimulus funding we're going to be
- 17 short on trying to go forward, so this is all the
- more important.
- 19 And so I move the item.
- 20 COMMISSIONER BYRON: Second.
- 21 VICE CHAIRPERSON BOYD: There's a motion
- and a second.
- 23 All in favor?
- 24 (Ayes.)
- 25 VICE CHAIRPERSON BOYD: Motion carries

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four to nothing. The item is approved. Thank
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- 2 you, Mr. Pennington.
- 3
 Item 11, New Solar Homes Partnership
- 4 call centers. Possible approval of amendments to
- 5 the call center contracts with three utilities
- 6 adding funding and a 24-month time extension for
- 7 application processing and call center activities
- 8 within their various territories.
- 9 MS. HALL: Good morning, Commissioners.
- 10 I'm Valerie Hall, I'm with the --
- 11 VICE CHAIRPERSON BOYD: We have Valerie,
- 12 not Mark Hutchison.
- 13 MS. HALL: Yeah, I thought I'd point out
- 14 I'm not Mark Hutchison. I'm Valerie Hall with the
- 15 efficiency and renewable energy division.
- The item before you is an amendment to
- 17 three separate contracts with the investor-owned
- 18 utilities to administer the New Solar Homes
- 19 Partnership.
- 20 Some of the contractual activities to be
- 21 conducted by the IOUs include reviewing
- 22 reservation applications, reviewing payment
- 23 claims, facilitating participation of new home
- 24 construction projects in both the New Solar Homes
- 25 Partnership and the complementary IOU energy

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1 efficiency programs.
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- They are also to help streamline the

 application process by communicating with the IOU

 energy efficiency program and interconnection

 departments. Perform plan checks and train

 applicants to the builders of solar retailers on

 the New Solar Homes Partnership.
- The New Solar Homes Partnership was

 launched in January 2007 as a part of the

 California Solar Initiative. It's dedicated to

 incentivizing new, highly energy efficient solar
 homes.
- To date we've received a little over

 7000 applications for the New Solar Homes

 Partnership, achieving approximately 13 megawatts

 of solar PV to be -- either is installed or to be

 installed on new homes.
- And remarkably, about 75 percent of the
 applications have come in at the tougher tier two
 level, which requires builders to exceed the
 building standards, the basic Title 24 building
 standards, by roughly 30 percent.
- 23 In 2007 the Commission approved the
 24 outsourcing of the daily New Solar Homes
 25 Partnership application processing to the three

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1 investor-owned utilities, along with an initial
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- 2 annual baseline funding of \$500,000.
- 3 It was noted that this annual allocation
- 4 was for the initial outsourcing costs, and further
- 5 resource needs would be assessed and requested as
- 6 needed.
- 7 COMMISSIONER ROSENFELD: The \$500,000
- 8 was for one year, Valerie?
- 9 MS. HALL: It was for the original
- 10 contract, which I believe was for a little over a
- 11 year.
- 12 Based on program activity and
- 13 anticipated growth, we determined that additional
- 14 resources were needed to continue the New Solar
- 15 Homes Partnership application processing
- 16 partnership with the IOUs.
- 17 And the new contract that's -- or
- 18 amendments that are before you today will -- some
- of the newer work or more intense work that's
- 20 being performed is looking a plan checks and
- 21 training the applicants. That's a greater
- 22 emphasis in these new contract amendments.
- I should note that a budget change
- 24 proposal was approved providing an additional
- 25 \$500,000 in baseline contract funding to bring the

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1 total annual allocation to $1 million. This
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- \$500,000 applies not only to the current fiscal
- 3 year, but for each of the two fiscal years of the
- 4 contract that are a part of the amendment.
- 5 The contract amendments, as I just
- 6 indicated, add two more years. So the current
- 7 contract would end at the end of this fiscal year.
- 8 This amendment is allowing not only a bump up in
- 9 the amount of money to \$1 million per year for
- 10 this year, next year and the following year, but
- it creates that next year and following year
- 12 portion of the contract.
- In conclusion, we're seeking your
- 14 approval for the following three contracts: For
- 15 Pacific Gas and Electric it's amendment number 1
- 16 to contract 400-07-005 adding \$1,392,851 along
- 17 with 24 months. That is a correction. The agenda
- 18 and the information before you had that last digit
- 19 as a 4; that was a typo. It should have been a 1.
- 20 VICE CHAIRPERSON BOYD: Do you want to
- restate that? It's \$1,392,851, is that correct?
- MS. HALL: Correct.
- 23 COMMISSIONER ROSENFELD: We just saved 3
- 24 bucks.
- 25 VICE CHAIRPERSON BOYD: Three dollars.

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MS. HALL: We just saved $3.
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 2
                   (Laughter.)
                   MS. HALL: We are looking for every
 3
 4
         dollar we can save. The contract with San Diego
 5
         Gas and Electric is amendment number 1 to contract
 6
         400-07-006 adding $540,409 and it includes the
         additional 24 months, as did the one with PG&E.
                   And then the final contract is with
 8
         Southern California Edison. Again, amendment
         number 1 to contract 400-07-007 adding $566,740
10
         and again 24 months.
11
                   So we are seeking your approval for
12
13
         these three individual contract amendments.
14
                   VICE CHAIRPERSON BOYD: First, I think
         procedurally we're going to have to take them
15
         separately. But a question, if I might, Valerie.
16
                   Is there some type of performance
17
         criteria that we establish for each of these. And
18
         do they all perform to some single performance
19
         criteria level, or do we have a different
20
21
         criteria? How do you determine that they're doing
         their job and deserve the money, et cetera, et
22
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MS. HALL: We are working with them

actually guite closely. We interact with them on

cetera?

23

24

1 a very frequent basis, looking at the -- you know,

- how they're doing the application process; how we
- 3 can, you know, looking at suggestions for how we
- 4 can improve that process.
- 5 How many applications they're reviewing.
- 6 We're trying to get the data on a monthly basis on
- 7 how many applications that actually come through,
- 8 so that we can continue to monitor the program and
- 9 provide oversight to assure that this is going as
- 10 well as possible.
- 11 VICE CHAIRPERSON BOYD: Do you feel that
- 12 all three are performing at more or less an
- 13 equivalent level or capacity?
- 14 MS. HALL: I think that all three are
- 15 performing. You will note that there is a
- 16 difference in the monetary amount between the
- 17 three. That PG&E has approximately twice the
- 18 amount of money as each of the other two. And
- 19 that reflects actually the activity in that
- service territory, that there is that much more
- 21 activity in the New Solar Homes Partnership in the
- 22 PG&E service territory than there is in the other
- 23 two.
- 24 COMMISSIONER ROSENFELD: And why do you
- 25 think that is?

1 MS. HALL: I would be speculating at

2 this point. That is something that we're actually

3 trying to determine. But we do know that there is

4 a great deal more activity, has been throughout

5 the entire course of the program.

2.0

So that actually is something that we are trying to determine. We are quite interested in why that is. We applaud the greater amount of activity in the PG&E service territory, and we're looking at ways we could possibly increase the activity in the other two.

VICE CHAIRPERSON BOYD: Those are late to new home construction building permit, numbers of building permits that --

MS. HALL: That's one of the things that we're looking at to see whether or not that there is a correlation there. I'm not sure that there is a correlation on that. I think that there's quite a bit of activity in the other two -- new home construction in the other two areas. So we don't -- we speculate at this point that that's not the case, but we don't know for certain.

COMMISSIONER LEVIN: I had a similar question. Some of this may be I'm new to the program area, but even having heard Commissioner

1 Boyd's question and your answer, I'm not comforted

- 2 actually, to be honest, by that.
- 3
 It didn't sound like performance
- 4 criteria, especially given the state of the
- 5 economy, the state of new home construction, to
- 6 have these sorts of increases not tied to a number
- 7 of homes.
- 8 And my understanding is that the number
- 9 of homes, 7000, the number of megawatts falls far
- 10 short of our expectations. So to have this kind
- of an increase, which I'm not great at math,
- either, but it looks like to me \$2.5 million over
- two years is more than \$1 a year.
- 14 I'm just wondering shouldn't we develop
- specific performance criteria, I mean number of
- calls or number of homes per dollar. What happens
- 17 if the need falls far short because of the housing
- 18 market didn't get this money back.
- 19 And a totally unrelated question is why
- 20 are we paying for this, and not the PUC or the
- 21 IOUs, themselves, or the homeowners. Why is this
- 22 coming out of Energy Commission funds?
- MS. HALL: I can probably take that last
- one first. This is actually coming out of the
- 25 renewable resources trust fund for the original

1 money. And let's see, I need to double check

- 2 here. And it is renewable resources trust fund
- 3 for the augmentation, as well.
- 4 We had originally been trying to do all
- 5 of the work of this program here inhouse. And we
- felt that it was not serving the Commission well,
- 7 nor was it serving our clients well.
- 8 This is a program in which you are
- 9 trying to coordinate both the renewable portion of
- 10 the PV and energy efficiency. And we developed
- our levels of energy efficiency in coordination
- 12 with the utility, so that the utility new home
- 13 construction programs which offer incentives for
- 14 exceeding Title 24 could be married better.
- So we could -- in the old process you
- 16 would have to come here and you would have to go
- 17 to the IOU to receive here the renewable portion
- of the money, the PV incentive, and to the IOU for
- 19 the energy efficiency portion of the money, which
- 20 basically splits the program and makes it more
- 21 difficult for clients to participate.
- 22 By placing it with the IOUs it makes for
- one-stop shop for the builders. And so they can
- 24 better have a more simplified approach, a single
- 25 place to go, get all their assistance in a more

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1 comprehensive and logical manner. So we
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- 2 deliberately moved this to the IOUs to do that.
- 3 The amount of money that we're using for
- 4 this administration of the program is remarkably
- 5 less than the percentage of money that is used for
- 6 the rest of the California Solar Initiative. So
- 7 we actually are getting a far better value for
- 8 administering this than for the rest of the solar
- 9 initiative.
- 10 And I have gone blank, I apologize, on
- 11 your earlier question.
- 12 MR. FOLKMAN: Maybe I can try to address
- 13 that. I'm Jim Folkman; I work in the renewables
- 14 office. And what we have here is these pots of
- 15 money; they are basically that. They're pots of
- 16 money that the utilities can draw from.
- 17 They are on an application volume basis
- 18 that, as the volume is there, then the invoices
- 19 can come in to us and we pay on that based upon
- the volume. If the volume's not there invoices
- 21 don't come in, therefore the pot of money stays,
- and we don't pay out.
- So it's not we're just paying, you know,
- for just some imaginary amount of projects and
- 25 applications that are coming in.

1 COMMISSIONER LEVIN: That makes much 2 more sense, thank you.

VICE CHAIRPERSON BOYD: Maybe for all of our benefit, but maybe particularly Commissioner Levin's benefit, you might explain a) the source of revenues to the trust fund. Where does it derive its monies. And secondly, maybe for all of our benefit, -- and there's been a rough allusion to the fact that the New Solar Homes Partnership is part of the total California Solar Initiative, and, you know, why we're doing it, I guess, is because that's the component of the total program that was assigned to the Energy Commission. Now to the trust fund, where it derives its revenue.

just answer that -- public goods charge money
that's levied by the Legislature. So it's the
same pot of money that we fund energy efficiency
programs from and research and development.

And in terms of your question about what we do going forward with utilities in terms of reimbursing them, I think it's a significant question. Now that we've got a couple of years of experience under our belt, I think it's time to start looking at should the utilities be funding

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1 this themselves. And looking at ways to
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- 2 streamline and improve.
- 3 But we felt that to make sure that the
- 4 first couple years that the utilities were not
- 5 necessarily jumping up with joy in terms of
- 6 bearing the administrative burden for this. At
- 7 the same time we thought it was very important
- 8 that we provide the resources to get the program
- 9 on its feet and moving.
- 10 COMMISSIONER LEVIN: Thank you, all.
- 11 Those are very helpful answers.
- 12 VICE CHAIRPERSON BOYD: Any other
- 13 questions?
- 14 COMMISSIONER BYRON: I was very
- interested in this topic, as well. In fact, I
- think the staff sought me out for a briefing,
- 17 which I was very pleased to take because of some
- 18 comments I had made when we first approved this.
- 19 And they provided me with a number of
- 20 metrics and were able to answer most all of my
- 21 questions. So, I thank you very much. But I
- notice, Ms. Hall, they sent you here for the
- presentation, so --
- 24 (Laughter.)
- 25 COMMISSIONER BYRON: -- I was going to

- 1 ask you tough questions. But my fellow
- 2 Commissioners have already asked the two
- 3 questions.
- 4 And I am concerned that we're way behind
- 5 this goal, as well. I'm also concerned about the
- 6 -- utilities. I think, you know, there's another
- 7 \$2.5 million being spent that we need to evaluate
- 8 just because they have the touch point with
- 9 customers, are they the right organization to be
- doing this. And I'm pleased to see the staff is
- 11 keeping very close tabs on that.
- 12 The differences between the north and
- south that we're seeing, I think we really should
- 14 try and understand that because there are other
- 15 corporate objectives that may be in play.
- 16 But I'm generally convinced -- I'm very
- 17 convinced that the staff has done a good job of
- 18 evaluating and selecting this approach for this
- 19 administration of these applications. The costs
- 20 are similar between all the investor-owned
- 21 utilities.
- But I think the real issue is that we
- are way behind on this goal. And we need to try
- 24 and understand that. I'd appreciate any
- 25 additional insights you or the staff might have on

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1 that. Not necessarily today, but in the future.
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- 2 MS. HALL: One minor insight is that it
- 3 is a 400 megawatt goal. It is a ten-year program.
- 4 And we did expect sort of a slow start and that it
- 5 would ramp up. And you could say that perhaps we
- 6 were true and we have seen a slow start, made
- 7 worse by the housing crisis.
- 8 COMMISSIONER BYRON: Right.
- 9 MS. HALL: But the percent of
- 10 applications or reservations for the New Solar
- 11 Homes Partnership, compared to housing starts in
- 12 California, we did a rough calculation just
- 13 recently and it looks like we're about 9 percent.
- 14 So 9 percent of all new housing starts
- 15 at the moment are participating in the New Solar
- 16 Homes Partnership, which actually might be a
- 17 pretty good number to begin with.
- 18 COMMISSIONER BYRON: Well, --
- MS. HALL: But we want to see that
- 20 increase to -- the goal is to have that increase
- 21 to 50 percent of housing starts by the end of
- 22 2016.
- 23 COMMISSIONER BYRON: And I understand
- 24 that, you know, the utilities, at least one, has
- 25 made it very clear they're going to get into the

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1 ownership of photovoltaics. This is going to be
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- their business model going forward. And how does
- 3 that impact the goals of the state with regard to
- 4 homeowner ownership of photovoltaics.
- 5 So I think we need to look at this
- 6 carefully. I've asked that utility to come in and
- 7 meet with me and explain what their business goals
- 8 are.
- 9 But I'm just concerned that that may be
- impacting these numbers, as well.
- 11 MS. HALL: Absolutely. We will be
- 12 looking into all things that we can discover.
- 13 COMMISSIONER BYRON: Okay.
- 14 VICE CHAIRPERSON BOYD: Questions or a
- 15 motion?
- 16 COMMISSIONER ROSENFELD: I move the
- 17 item.
- 18 COMMISSIONER BYRON: Second.
- 19 VICE CHAIRPERSON BOYD: There's a motion
- and a second.
- 21 All in favor?
- 22 (Ayes.)
- 23 VICE CHAIRPERSON BOYD: Approved four to
- 24 nothing, and with the proviso that we'll get more
- 25 information. And Ms. Jones is going to be delving

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1 into the delivery system.
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- MS. HALL: Thank you.
- 3 VICE CHAIRPERSON BOYD: Thank you.
- 4 MR. FOLKMAN: Thank you.
- 5 VICE CHAIRPERSON BOYD: Item 12,
- 6 Hydrologic Research Center. Possible approval of
- 7 contract 500-08-033 for \$1 million with Hydrologic
- 8 Research Center to refine and enhance an
- 9 integrated forecasting and decision support system
- 10 for northern California reservoirs.
- 11 I'm going to let Mr. O'Hagan give us the
- 12 details.
- 13 MR. O'HAGAN: Thank you, Commissioner
- Boyd. Good morning, Commissioners. My name is
- Joe O'Hagan; I'm in the PIER environmental area.
- And I'm here before you this morning asking for
- 17 approval for a \$1 million PIER electric fund for a
- 18 project to enhance and refine the integrated
- 19 forecasting reservoir management system.
- The INFORM, as we call it for short, is
- 21 a coupled forecasting and decision support system
- of models to aid reservoir operators understand
- 23 potential reservoir inflows and to understand the
- 24 consequences of alternative management options,
- both at the facility and downstream.

1	The forecasting component is focused on
2	four of northern California's major reservoirs,
3	Shasta, Trinity, Oroville and Folsom. And as
4	you're well aware, these are major components of
5	both the state and federal water projects. And
6	have over 1500 megawatts of hydroelectric
7	generating capacity installed.
8	The goal of this INFORM is to provide
9	probablistic runoff forecasts so the reservoir
10	operator knows, has a likelihood of what type of
11	inflows would occur.
12	Coupled with this system is the decision
13	support model which allows the facility operators
14	to understand balancing flood control,
15	environmental concerns, retention for water
16	supply, or hydropower generation, given the
17	forecast of reservoir inflows. And also it
18	addresses the Sacramento Valley hydrologic system
19	so you understand the downstream consequences of
20	these actions.
21	The first phase of this project
22	developed the model and demonstrated it quite

developed the model and demonstrated it quite successfully. This was cofunded by the Energy Commission, NOAA and CalFed.

We did a retrospective analysis that

23

shows that if the INFORM system had been used over

- 2 2006, 2007 and 2008 significant improvement in
- 3 hydropower generation and water retention at the
- 4 end of the wet season would have occurred. Need
- 5 to understand that that was sort of a
- 6 simplification, but it does show that the model
- 7 can work quite successfully.
- 8 What we're asking approval for today
- 9 would be research to bring this modeling system up
- 10 to operational status. There's biases in the
- forecasting system that need to be resolved.
- 12 There's better digestion of information coming in
- that would allow better, more robust model
- 14 predictions.
- 15 We would also expand the area addressed
- in the decision support model to the whole state
- 17 and federal water projects down to San Luis
- 18 Reservoir and New Melones Dam, as well.
- 19 We would also incorporate some more
- 20 environmental concerns on downstream issues, as
- 21 well as flooding concerns downstream.
- This is a unique prototype. It's the
- first in the nation to take this approach in terms
- of reservoir management. And so far it's been
- very successful. So I ask your approval of this

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1 further work on the project.
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- VICE CHAIRPERSON BOYD: Thank you, Mr.
- 3 O'Hagan. The question, are the federal and state
- 4 facility operators supporting, openly receptive to
- 5 what it is your work -- we are doing here, and
- 6 what the possible outcome of that might be?
- 7 I know we're in it for the hydroelectric
- 8 piece of it. There's going to be a spillover, a
- 9 significant spillover benefit to those who are
- 10 interested in just water yield. Like to see them
- 11 paying for some of this. But I think it's
- important for us to proceed with it.
- But are they receptive to all of this?
- 14 Are they going to embrace this when you're done?
- 15 MR. O'HAGAN: Yes. The federal
- agencies, the Army Corps of Engineers, U.S. Bureau
- 17 of Reclamation, at the state level the Department
- 18 of Water Resources, some of the local agencies
- 19 like the Sacramento Area Flood Control Agency,
- 20 have all been heavily involved in this project
- 21 from the inception of it.
- They've been very supportive. They've
- participated with the researchers when they were
- 24 doing near real time analysis of how INFORM
- 25 performed versus the existing system.

1	They also had supported that these
2	additional research items, which is in the
3	proposal before you today, be conducted. NOAA and
4	the Bureau have been supportive, and support us
5	doing this work. The Department of Water
6	Resources also very supportive of this work. We
7	have a letter of support from Lester Snow, the
8	Executive Director.
9	So, they're all very interested in
10	seeing this go forward.
11	VICE CHAIRPERSON BOYD: Okay, thank you.
12	I would just make a note to whenever this
13	project's going to be done, I would suspect this
14	is, if the outcome is as positive as it sounds
15	like it will, this is probably deserving of quite
16	a bit of fanfare when it's unveiled and installed.
17	Maybe a multiple-agency event, or what-have-you.
18	But, in any event, something to keep in mind.
19	Any other questions? Commissioner
20	Byron.
21	COMMISSIONER BYRON: Mr. O'Hagan, I note
22	that everybody's talking about the weather, but
23	nobody does anything about it.
24	(Laughter.)

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COMMISSIONER BYRON: So I --

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1 COMMISSIONER ROSENFELD: But we're doing
2 a lot about it, we're --
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COMMISSIONER BYRON: Well, and I think
this is a good project. I guess the only other
thing I'd ask, if you come back to us with a
contract amendment at some time in the future,
that perhaps could increase participation -precipitation.

9 (Laughter.)

10 MR. O'HAGAN: I'll work on that.

commissioner Levin: I had a question similar to Commissioner Boyd's comment about the fanfare. Sort of an ongoing question of mine.

The staff here does such incredible work, across so many different issue areas. And virtually of them, I think, is leading the country.

It seems like this is a perfect example of something that, assuming it works, we should be sharing with other states and counterparts. And somehow can we build that into the plan going forward.

It's -- just yesterday I was in contact with the State of Massachusetts on an issue where we're both working on completely separated isolated tracks. And it seems like it's in

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1 everyone's interest, given that we are impacting
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- 2 the climate, if not the actual weather, we need to
- 3 be more efficient across state boundaries.
- 4 So, just something for future reference.
- 5 I think it would be really helpful to know.
- 6 MR. O'HAGAN: Okay, thank you. I will
- 7 say that NOAA's been very very supportive of this,
- 8 and with the firm thought in mind that this would
- 9 be applied elsewhere.
- 10 VICE CHAIRPERSON BOYD: We wrote the
- 11 checks, we should be first in line.
- 12 Any other questions, comments?
- 13 COMMISSIONER ROSENFELD: I move the
- 14 item.
- 15 VICE CHAIRPERSON BOYD: There's a
- 16 motion.
- 17 COMMISSIONER LEVIN: Second it.
- 18 VICE CHAIRPERSON BOYD: And a second.
- 19 All in favor?
- 20 (Ayes.)
- 21 VICE CHAIRPERSON BOYD: Approved four to
- 22 nothing. Thank you, Joe.
- MR. O'HAGAN: Thank you very much.
- 24 VICE CHAIRPERSON BOYD: Item 13, CTG
- 25 Energetics, Inc. Possible approval of contract

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1 500-08-036 for \$689,558 with CTB -- I said CTG the

- first time, now it says CTB. You'll have to
- 3 correct me, Mr. Bourassa.
- 4 COMMISSIONER BYRON: One of those is
- 5 right.
- 6 VICE CHAIRPERSON BOYD: -- to review
- 7 current greenhouse gas assessment activities and
- 8 make recommendations, so on and so forth. Mr.
- 9 Bourassa, first which is it? And second, would
- 10 you explain the item. I even missed this till
- 11 just now.
- 12 MR. BOURASSA: Yeah, I missed it
- 13 multiple times. Good morning, Commissioners. I'm
- 14 Mr. Norman Bourassa, or Bourassa, however you want
- 15 to pronounce it, team lead for the PIER buildings
- 16 program.
- 17 VICE CHAIRPERSON BOYD: Well, how do you
- 18 pronounce it? We want to pronounce it the right
- 19 way.
- 20 MR. BOURASSA: We've had this discussion
- 21 before.
- 22 (Laughter.)
- MR. BOURASSA: French-Canadian,
- Bourassa, is the correct way.
- 25 VICE CHAIRPERSON BOYD: Thank you.

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1 MR. BOURASSA: But I'm in America right
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- 2 now, so it's Bourassa.
- 3 (Laughter.)
- 4 MR. BOURASSA: And that's fine.
- 5 COMMISSIONER LEVIN: But the spelling's
- 6 correct, right?
- 7 MR. BOURASSA: Yes. As long as it's
- 8 spelled correct, I'm happy.
- 9 This proposed contract with CTG
- 10 Energetics will provide California with market --
- 11 stakeholder, develop protocols for the assessment
- 12 and quantification of greenhouse gas emissions
- 13 associated with the built environment.
- The \$690,000 project was one of ten
- 15 contract awards resulting from technology
- innovations for buildings and communities research
- 17 solicitation that the Energy Commission released
- 18 last year.
- 19 The certified contract manager for this
- 20 project will be David Weightman in the PIER
- 21 buildings group.
- The Energy Commission proposes to use
- this project to lead a series of collaborative
- interdisciplinary research projects to develop
- 25 these protocols for the assessment and

1 quantification of greenhouse gas emissions

- 2 resulting from built environment activities.
- 3 The three sets of protocols that we
- 4 propose to release will be covering single
- 5 building, land use and infrastructure areas. And
- 6 the plan is to produce protocols that can help
- quantify emissions in those three sector activity
- 8 areas.
- 9 The protocols will be developed through
- 10 a series of broadly representative technical
- 11 working groups. And each group will include
- 12 technical professionals, public agencies,
- 13 nongovernmental advocates, project developers,
- 14 legal advisers and academics, et cetera, from the
- public cross-section of stakeholders.
- 16 Since the passage of AB-32 and the
- 17 resulting enforcement by the Attorney General
- 18 under CEQA over the last two years, construction
- 19 projects that have incorporated sustainabilty and
- 20 energy efficiency features in consideration of
- 21 greenhouse gas emissions has increased.
- The protocols here will hopefully
- support those, and potentially accelerate this
- 24 trend, as well as serve to link and leverage many
- 25 lines of Energy Commission research in these

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1	areas.

- The project is included in the 2008/2009
- 3 PIER buildings budget. The work scope has been
- 4 approved by contracts in legal, and the R&D
- 5 Committee has approve it. And I can answer any
- 6 questions if you have any.
- 7 VICE CHAIRPERSON BOYD: Thank you.
- 8 Questions or comments?
- 9 COMMISSIONER BYRON: None.
- 10 VICE CHAIRPERSON BOYD: Motion?
- 11 COMMISSIONER ROSENFELD: I move the
- 12 item.
- 13 COMMISSIONER BYRON: Second.
- 14 VICE CHAIRPERSON BOYD: There's a motion
- 15 and a second.
- 16 All in favor?
- 17 (Ayes.)
- 18 VICE CHAIRPERSON BOYD: It's approved
- 19 four to nothing. Thank you, Mr. Bourassa.
- 20 COMMISSIONER LEVIN: Can you get his
- 21 name --
- VICE CHAIRPERSON BOYD: Bourassa.
- 23 MR. BOURASSA: Very good, that was very
- 24 good.
- 25 VICE CHAIRPERSON BOYD: Well, that

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1 sounds Spanish, though, doesn't it?
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- 2 Item 14 -- stick around, Mr. Bourassa,
- 3 we're not done with you.
- 4 Item 14, University of California Los
- 5 Angeles, otherwise known as UCLA, possible
- 6 approval of contract 500-08-029 for \$708,245 with
- 7 the university to develop additional features to
- 8 the Home Energy Efficient Design or HEED software
- 9 tool. Mr. Bourassa.
- 10 MR. BOURASSA: Thank you. This proposed
- 11 contract with UCLA is going to add a whole host of
- features and capabilities to HEED. The \$708K
- 13 project again was one of ten contract awards from
- 14 the technology innovations for buildings and
- 15 communities research solicitation.
- 16 The additional features to HEED are
- designed to help California, as you said, move
- 18 towards the residential net zero energy goals of
- 19 2020.
- 20 HEED, to give some background on what
- 21 HEED is, HEED is a user friendly computer program
- that homeowners, builders, contractors and
- 23 architects use to simulate the energy consumption
- of a residential home. I emphasize easy to use
- 25 because that has been the focus. It is a software

1 tool that is really geared toward the nonbuilding

- 2 simulation expert.
- 3 And as a result it's got a very large
- 4 user base in California, especially among
- 5 homeowner builders, the more lay energywise
- 6 contractor types and design build, and architects.
- 7 Architects really don't want to deal with advanced
- 8 simulation tools.
- 9 So the tool can be used very effectively
- 10 for both new construction and major renovation
- 11 projects on existing homes.
- The tool is based off of simplified
- 13 calculation algorithms that have been PIER-
- 14 developed through ASHRAE. And as a result it's a
- very validated simulation tool.
- This project's going to add
- 17 approximately 35 additional features to the
- 18 existing software capabilities, significantly
- increasing the robustness and the capabilities of
- the tool.
- 21 Three notable examples are that this
- 22 project will add in the CEC PV calculator for
- 23 calculating the hourly performance of
- 24 photovoltaics and solar domestic hot water
- 25 systems, which is good. That'll get some

1 consistency in the tool with respect to the use of 2 our own program, and Title 24 compliance, as well.

It's also going to add a thermal comfort calculator module which will help analyze the occupant comfort impacts due to energy efficiency upgrades, which is something that can be kind of a problem sometimes; it can get too aggressive with some energy savings space conditioning technologies.

And the work that will be added into this actually builds upon already PIER-funded work with the UC Berkeley and the Center for the Built Environment. We're doing this work for commercial buildings.

And also we're going to be adding capabilities for very simple and streamlined simulation result export capabilities into Title 24 residential compliance software. We actually have some built-in collaboration in the works with some of the vendors that produce those compliance software programs.

The project also includes a strong effort to conduct public workshops throughout the state to help provide outreach and training to the user base, and help educate the public with

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1 respect to the benefits of using simulation for
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- 2 home, energy efficient home design.
- 3 So the project is included in the 08/09
- 4 PIER buildings budget. The work scope has been
- 5 approved by contracts and legal; and the R&D
- 6 Committee has approved this project.
- 7 Any questions?
- 8 VICE CHAIRPERSON BOYD: Thank you.
- 9 Ouestions, comments?
- 10 COMMISSIONER BYRON: No.
- 11 VICE CHAIRPERSON BOYD: Motion?
- 12 COMMISSIONER ROSENFELD: Norm, I have a
- 13 question for you. This has features that the
- 14 existing compliance tool doesn't have?
- MR. BOURASSA: Right.
- 16 COMMISSIONER ROSENFELD: And so you're
- going to make it interoperable somehow?
- 18 MR. BOURASSA: Right. Rather than --
- 19 the discussions have been with ENERGYPRO and
- 20 ENERGYSOFT. And rather than having to rebuild the
- 21 model of the home from scratch in the ENERGYPRO
- 22 tool, these features will actually allow the
- 23 compatible parts of the model that have already
- 24 been built up, and also some of the calculations
- with respect to some of the prescriptive

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1 requirements in Title 24, to just be
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- 2 electronically imported into the ENERGYPRO tool.
- 3 It will greatly simplify the process of
- 4 demonstrating compliance.
- 5 COMMISSIONER ROSENFELD: Okay. I move
- 6 the item.
- 7 COMMISSIONER LEVIN: Second it.
- 8 VICE CHAIRPERSON BOYD: There's a motion
- 9 and a second.
- 10 All in favor?
- 11 (Ayes.)
- 12 VICE CHAIRPERSON BOYD: Approved four to
- 13 nothing. Thank you.
- 14 Item 15, University of California
- 15 Irvine. Not to be outdone by UCLA. Possible
- 16 approval of contract 500-08-034 for \$1,132,714
- 17 with UCI to develop criteria that will help system
- operators predict the impacts of differing fuel
- 19 composition, et cetera. Ms. Mueller.
- 20 COMMISSIONER ROSENFELD: What did you do
- 21 to your arm?
- MS. MUELLER: Oh, I was having too much
- fun skiing; I fractured it. Soon to come off,
- 24 hopefully, the thing here I'm wearing.
- 25 Good morning, I'm Marla Mueller, and I'm

1 with the PIER environmental program. The goal of

- 2 this project is to develop criteria that can be
- 3 used to predict how combustion devices will behave
- 4 in fuel when it's changed from natural gas to a
- 5 different type of fuel, such as landfill gas,
- 6 biomass, LNG.
- 7 This will be valuable to help combustion
- 8 system operators, manufacturers, regulatory
- 9 agencies evaluate the implications of using
- 10 different fuels.
- 11 When compositions of natural gas change
- 12 the property shifts can be significant, and this
- 13 can impact how these devices operate. In order to
- 14 use alternative fuels safely we need to better
- understand the properties of these fuels.
- 16 Currently what happens is that we're
- 17 depending on tests and methods that were developed
- in the '20s, '30s and '40s. This was a time when
- devices that were used were much simpler. They're
- not as -- they didn't have the low NOx burners,
- 21 all the controls that we use on these devices now.
- 22 And mainly it relies on testing of these
- different devices. What we're trying to do here
- is develop criteria that would allow you to
- 25 predict what's going to happen without having to

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do so many testing, which is very expensive.
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- 2 The objective of this project is to 3 increase the knowledge of combustion
- 4 characteristics of gaseous fuels and to develop
- 5 appropriate gaseous fuel interchangeability
- 6 criteria that can improve predictability of
- 7 combustion behaviors of different fuels and
- 8 emissions.
- 9 I'd like to point out this does support
- 10 the IEPR goal to increase the diversity of its
- 11 natural gas supply to insure no net material
- increase in air pollution, water pollution or any
- 13 other substances that are known to damage human
- 14 health, by developing measures that can better
- 15 predict what will happen.
- Thank you.
- 17 VICE CHAIRPERSON BOYD: Thank you, Ms.
- 18 Mueller. I would just say, as one who's lived
- 19 with this gas quality issue for more than a
- 20 decade, I see this as a very positive step in a
- good direction to help answer some of the
- 22 questions that have been air quality-related, as
- 23 well as just energy related.
- 24 Any questions or comments?
- 25 COMMISSIONER ROSENFELD: Yeah. I'm

1 probably admitting I haven't read the briefing

- 2 section for item 15, but natural gas is used for a
- 3 huge variety of things all the way from fueling a
- 4 power plant to fueling your kitchen stove.
- 5 And I guess I'd like some sort of idea
- 6 about what the big customer is for this
- 7 information.
- 8 MS. MUELLER: We're going to try to make
- 9 it as broad as we can, so we're not selecting one
- 10 particular area at this point. We are going to
- 11 try to -- this is going to be very basic research.
- 12 where they're looking at the very characteristics.
- And we're going to try to make it as applicable,
- as broad as we can to as many appliances -- or
- shouldn't even call them appliances -- devices
- 16 that would use natural gas.
- 17 EXECUTIVE DIRECTOR JONES: And I guess I
- 18 would add that some of the recipients of the
- 19 information here would be those who may be
- 20 producing or using biofuels and other alternative
- 21 fuels either for power generation or hopefully in
- the transportation sector.
- So, I think it has wide application.
- 24 VICE CHAIRPERSON BOYD: Any other
- 25 questions? Yes, Commissioner Byron.

Τ	COMMISSIONER BIRON: Ms. Mueiler, I have
2	a feeling I know the answer to this, but I want to
3	ask anyhow. Why don't we take a different
4	approach to this problem, and I haven't been
5	dealing with it as long as Commissioner Boyd has,
6	but why not develop a standard and let industry
7	meet that standard, so that we don't have to be
8	concerned about this sort of thing. Or is that
9	not possible?
10	MS. MUELLER: I think the issue here is
11	that you have different devices that behave
12	differently. So one standard wouldn't necessarily
13	fit every situation.
14	COMMISSIONER BYRON: Um-hum.
15	VICE CHAIRPERSON BOYD: I, perhaps,
16	should not have injected the gas quality component
17	into this discussion because this is slightly
18	different. As I see it, no matter what if we
19	have a standardized single gas flowing through
20	pipelines, no matter what its origins were, we're
21	still going to have the various devices react to
22	that gas.
23	And we've let too many years go by not

knowing that. And there have been too many

debates about the air quality impacts, the device

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durability impacts, et cetera, as I've seen it,
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- 2 anyway.
- 3 And, Marla, I don't know if I'm muddling
- 4 this up or helping answer the question.
- 5 MS. MUELLER: I think that's correct.
- And, for example, we have, in some testing we're
- doing right now, we're looking at industrial
- 8 burners. And all industrial burners --
- 9 COMMISSIONER ROSENFELD: I'm sorry,
- 10 looking at what burners?
- 11 MS. MUELLER: Industrial burners.
- 12 COMMISSIONER ROSENFELD: Industrial
- 13 burners.
- 14 MS. MUELLER: Yeah. And we're finding
- that they don't all behave the same. Because
- 16 they, you know, some are burning at higher
- 17 temperatures and their flame characteristics are
- 18 different.
- So we're finding, in one case we're
- finding that CO is going up, the index is going
- 21 up. But for the other burners it's not a
- 22 situation.
- 23 So if we just had one standard it
- 24 wouldn't necessarily cover every application out
- 25 there.

1 COMMISSIONER BYRON: But is it possible 2 that this work could eventually lead to a standard

or set a standards for gas or alternative gas

4 products?

MS. MUELLER: I think it would certainly give you guidance on parameters that should be included in a standard. So, I think it could give you some information that might -- I'm not sure it will answer the question, this project. We may be able to -- it would give you some information that would let you know what you needed to evaluate or what you needed to consider in setting a standard.

COMMISSIONER BYRON: Well, if no one else is doing work in this area, and you're leading the way, I'd certainly ask that you think about how your results might apply. Because perhaps, at least in my thinking, that's where this should be headed.

I'm willing to accept that I don't completely understand the problem, but standards are a good thing. And that way the cost and responsibility is put on industry in order to make sure these appliances will take these alternative gases -- alternative fuels.

MS. MUELLER: Okay.

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1 COMMISSIONER BYRON: Thank you.
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- MS. MUELLER: Um-hum.
- 3 COMMISSIONER BYRON: I'd move the item.
- 4 COMMISSIONER ROSENFELD: Second.
- 5 VICE CHAIRPERSON BOYD: Motion and a
- 6 second.
- 7 All in favor?
- 8 (Ayes.)
- 9 VICE CHAIRPERSON BOYD: Carries four to
- 10 nothing. Thank you, Marla.
- MS. MUELLER: Thank you.
- 12 VICE CHAIRPERSON BOYD: Item 16,
- 13 University of Missouri Columbia. Possible
- 14 approval of contract 500-08-022 for \$1 million
- with the University of Missouri Columbia to
- develop an advanced adsorbed natural gas tank for
- 17 natural gas vehicle onboard and fueling station
- 18 storage applications. Mr. Smith.
- MR. SMITH: Good morning, Commissioners.
- 20 My name is Mike Smith; I'm the deputy director for
- 21 fuels and transportation here at the Commission.
- 22 And as you described, Commissioner Boyd,
- 23 this is a demonstration project with the
- 24 University that hopefully will address a fairly
- 25 critical design issue with natural gas vehicles.

Presently one of the major problems that 1 these vehicles face is the storage of fuel.

- this fuel is generally stored in high pressure, 3
- 4 about 3600 psi, in large, heavy, metal containers.
- 5 So not only does it add weight to the
- 6 vehicle, it takes up space. There's not much
- flexibility in the design of the fuel storage with
- respect to the vehicle. 8

- What this technology will do is add,
- create a certain -- create significant 10
- flexibility. It's a substance -- nanoporous 11
- briquette material made from, of all things, corn 12
- 13 cobs. Now that's about as far as I'm going to be
- 14 able to explain how you take corn cobs and turn
- them into natural gas storage tanks. 15
- But the results, you know, it looks very 16
- 17 very promising. And probably the primary benefits
- 18 that come out of this are, a I mentioned earlier,
- the flexibility of designing the storage tank 19
- around the vehicle. 20
- 21 It also allows the tank to store the
- fuel under much much lower pressure. So, in 22
- dropping from what is now about 3600 psi storage 23
- 24 pressure, down to about 500 psi. A considerable
- 25 difference.

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1 It also allows the storage of more fuel
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- onboard, so you're increasing the range of the
- 3 vehicles. The material is much lighter weight, so
- 4 hopefully you're increasing the efficiency of the
- 5 vehicles.
- Another interesting aspect to this, if
- 7 this proves out, is that it could have similar
- 8 benefits to the design of hydrogen storage
- 9 facilities, or storage systems on vehicles, which
- 10 also could bring the pressures down considerably,
- and address a really critical issue with respect
- to the design and operation of hydrogen fuel cell
- 13 vehicles.
- So, we're very excited about this
- 15 project. There's a match share of about \$617,000.
- 16 So we're asking for your approval. It's been
- 17 reviewed and approved by both the RD&D Committee
- and the Transportation Committee.
- 19 And I'll be more than happy to answer
- any questions if you have any.
- 21 VICE CHAIRPERSON BOYD: Thank you, Mr.
- 22 Smith. Any questions or comments?
- 23 COMMISSIONER BYRON: Well, the uses of
- 24 corn never seem to cease to amaze me here. Now
- we're using the cob of the corn. So, --

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- 2 very --
- MR. SMITH: Nothing goes to waste.
- 4 COMMISSIONER BYRON: Yes.
- 5 VICE CHAIRPERSON BOYD: It might have a
- 6 very good foot imprint.
- 7 COMMISSIONER BYRON: No, the numbers
- 8 sound very encouraging. So, a very interesting
- 9 research project. And I'm glad to see there's
- 10 significant matching funds, also.
- 11 I'll move the item.
- 12 COMMISSIONER ROSENFELD: Second.
- 13 VICE CHAIRPERSON BOYD: A motion and a
- 14 second.
- 15 All in favor?
- 16 (Ayes.)
- 17 VICE CHAIRPERSON BOYD: Motion carries
- 18 three to nothing. Thank you, Mr. Smith.
- MR. SMITH: Thank you.
- 20 VICE CHAIRPERSON BOYD: Now a different
- 21 Mr. Smith. Item 17, California Department of
- 22 Technology Services. Possible approval of
- 23 contract 200-09-001 for \$600,000 for a four-year
- 24 period with the California Department of
- 25 Technology Services. Mr. Larry Smith.

MR. SMITH: Yes. Good morning, 1 I'm Larry Smith; I'm the chief 2 Commissioners. information officer for the Energy Commission. 3 And here I'm seeking the approval for 4 5 continuing the interagency agreement with the 6 Department of Technology Services, formerly known as Teale Data Center. And this provides us a state-mandated 8 automated connectivity with several control

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agencies with that being Department of Finance for their CalStars or accounting systems; Department of Personnel Administration for personnel transactions; and the State Controller's Office for payroll.

And in this particular interagency agreement we are asking for there is a \$50,000 annual increase. And that is our fair share in the Governor's portal, and that we are looking at increasing our bandwidth over the internet and email services that the DTS, or Department of Technology Services, provides.

So, I am requesting approval for the interagency agreement in the amount of \$600,000 for a four-year contract at an annual \$150,000 rate.

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VICE CHAIRPERSON BOYD: Thank you.

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Questions, comments from Commissioners? A motion?
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                   COMMISSIONER BYRON: I'll move the item.
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                   COMMISSIONER ROSENFELD: Second.
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                   VICE CHAIRPERSON BOYD: There's a motion
 6
         and a second.
                   All in favor?
                   (Ayes.)
 8
                   VICE CHAIRPERSON BOYD: Item carries
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         three to nothing, thank you, Mr. Smith. But don't
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11
         go away.
                   COMMISSIONER ROSENFELD: Don't go away,
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13
         yes.
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                   VICE CHAIRPERSON BOYD: Item 18, Andes
         Consulting, LLC. Possible approval of purchase
15
         order 08-409.00-008 for $75,000 with said company
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         to provide programming services for application
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18
         and database support. And, Mr. Smith, I'll let
19
         you elaborate.
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                   MR. SMITH: And this system is the
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         energy efficiency financing system. And it's also
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known as the loan master. And we're planning to

information technology best practices of putting

incorporate this into our existing grants and

loans systems. And we're doing this for the

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1 all grants and loans information in one location.
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- 2 So that we don't have multiple systems and data
- 3 throughout the Commission.
- 4 This is for the special projects office
- 5 now with the fuel and transportation division.
- And this covers the energy efficiency planning
- 7 program, the Bright Schools Partnership, and the
- 8 energy partnership program.
- 9 And so we are requesting a purchase
- 10 order in the amount of \$75,000 for a six-month
- 11 period, to incorporate the system into the grants
- 12 and loans.
- 13 VICE CHAIRPERSON BOYD: Thank you.
- 14 Questions? Comments?
- 15 COMMISSIONER BYRON: One quick question.
- As far as general question, Mr. Smith, but I'm not
- terribly familiar with the state's contracting
- 18 laws and rules. This was competitively --
- MR. SMITH: This was, yeah; this was a
- 20 California multiple schedule --
- 21 COMMISSIONER BYRON: \$75,000 award.
- 22 About how long does it take for this Commission to
- 23 process something like that, to get to the point
- we are today, approving.
- MR. SMITH: You mean to process the --

1 COMMISSIONER BYRON: Conceptualize, bid

- 2 it, receive, evaluate and here we are approving.
- 3 MR. SMITH: It's about a three-month
- 4 period.
- 5 COMMISSIONER BYRON: Well, that's very
- 6 good.
- 7 EXECUTIVE DIRECTOR JONES: And that is
- 8 an expedited process where you go to contractors
- 9 who've already negotiated with DGS and have
- 10 established rates.
- 11 COMMISSIONER BYRON: Good.
- 12 EXECUTIVE DIRECTOR JONES: So you don't
- have to go out with a full RFD.
- 14 COMMISSIONER BYRON: I'm encouraged.
- 15 Thank you. I move the item.
- 16 COMMISSIONER ROSENFELD: Second.
- 17 VICE CHAIRPERSON BOYD: Motion and
- 18 second.
- 19 All in favor?
- 20 (Ayes.)
- 21 VICE CHAIRPERSON BOYD: Approved three
- 22 to nothing. Thank you.
- 23 Item 19, Public Sector Consulting
- 24 Services. Possible approval of a purchase order
- 25 08-409.00-004A for \$43,740 to said company to

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1 amend the existing purchase order for technical

- 2 support for the PIMS system, as we call it. Mr.
- 3 Smith.
- 4 MR. SMITH: This is amendment 1 to an
- 5 existing contract. And it was also competitively
- 6 bid through the California multiple awards
- 7 schedule.
- This is, we're looking at some
- 9 additional business requirements that are being
- 10 added to the program information management system
- in that we are currently implementing AB-118 data
- 12 into the system. And we also are now looking at
- 13 the Governor's executive order for renewable
- 14 energy and the federal stimulus package.
- And so there's some more requirements
- that are going into the system. And so we wanted
- 17 to make sure that we had the programming and
- 18 business analysis staff available to make sure
- 19 that that is incorporated into the existing PIMS
- 20 system.
- 21 We do have a follow-on project, COMTS,
- or Commission Energy -- or 9 Commission tracking
- 23 system, Energy Commission tracking system, that
- 24 will relook at replacing the PIMS environment, as
- we see it today. And we have consultants

1 currently onboard writing the feasibility study to

- 2 do that.
- 3 But for this particular piece here we
- 4 need to make sure that we have staff onboard to
- 5 get the Governor's executive order and federal
- 6 stimulus package data into the system.
- 7 VICE CHAIRPERSON BOYD: Thank you.
- 8 Questions, comments?
- 9 COMMISSIONER BYRON: No, sounds --
- 10 VICE CHAIRPERSON BOYD: Motion.
- 11 COMMISSIONER ROSENFELD: I move the
- 12 item.
- 13 COMMISSIONER BYRON: I second it.
- 14 VICE CHAIRPERSON BOYD: A motion and a
- 15 second.
- 16 All in favor?
- 17 (Ayes.)
- 18 VICE CHAIRPERSON BOYD: Approved three
- 19 to nothing. Thank you very much. One more, Mr.
- 20 Smith.
- 21 CAMCO Communications Corporation.
- Possible approval of purchase order 08-409.00-010
- for \$84,300 to said company for the Commission's
- 24 website server co-location services. Again, Mr.
- 25 Smith.

1	M	R. S	SMITE	H:	CAMC	O Con	nmuni	icatio	on
2	Corporation	is	who	won	the	bid	for	this	award.

3 And the datacenter that the website is currently

4 housed at is Hercules Data Center. And CAMCO won

the award again, and we're going to continue to

have our datacenter or the website at Hercules

7 Data Center.

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The reason for being offsite is that we need, you know, we need 24/7 technical support.

And so that, you know, it's being monitored all the time because the website is our public facing system, and provides information out from the Energy Commission.

We do have a backup system in place here at 1516 Ninth Street. And should the website fail at the Hercules Data Center, it will automatically fail over to the website. And it's a mirror image of the website here. And it will fail over and then run here until the Hercules site is then brought back up.

And we're asking for this approval of the purchase order with CAMCO Communication Corporation in the amount of \$84,300 for four years.

25 VICE CHAIRPERSON BOYD: So, as I

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1 understand it, the primary is offsite and the
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- 2 secondary is here onsite.
- 3 MR. SMITH: That's correct.
- 4 VICE CHAIRPERSON BOYD: Okay. Any
- 5 questions?
- 6 COMMISSIONER BYRON: I can't help but
- 7 ask, how long have we been doing this? Do you
- 8 know how long we've been having the mirrored
- 9 datacenter?
- 10 MR. SMITH: I think -- at this
- 11 particular datacenter?
- 12 COMMISSIONER BYRON: No, in general, --
- 13 VICE CHAIRPERSON BOYD: At any --
- 14 COMMISSIONER BYRON: -- does anybody
- 15 know?
- MR. SMITH: I think it's eight years,
- 17 but for --
- 18 COMMISSIONER BYRON: We've been doing it
- 19 for eight years?
- MR. SMITH: Well, no, four years, and
- 21 this will be an additional four.
- MR. DAVIS: My name's Derek Davis, and I
- 23 can answer that question for you, sir. The
- 24 webserver has always been at an outside location
- for the last ten years. It moved from place to

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1 place, from San Jose to San Diego --
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- 2 COMMISSIONER ROSENFELD: Excuse me, do
- 3 you have your mike on?
- 4 MR. DAVIS: Yes, can you hear me?
- 5 COMMISSIONER ROSENFELD: Yes, --
- 6 VICE CHAIRPERSON BOYD: Get closer is
- 7 the secret.
- 8 MR. DAVIS: Yes, sir.
- 9 COMMISSIONER LEVIN: And can you repeat
- 10 your name for the record, please.
- 11 MR. DAVIS: Derek Davis, I'm the
- 12 supervisor of network services. And the website
- 13 has always been located offsite for the last ten
- 14 years or so. It has moved from place to place,
- 15 San Jose to San Diego, different co-location
- 16 sites.
- We have consolidated in the last --
- 18 about six or seven years ago to Sacramento for
- more manageability and more control.
- 20 With the Hercules site, one of the
- 21 requirements was that the personnel and the
- 22 equipment, everything it needed for 24/7 we didn't
- 23 have that here in the Commission. And also to, as
- 24 moving forward, to meet with some of the
- 25 Governor's initiative and OCIO is disaster

1 recovery possibilities in the future. So this is

- 2 kind to meet a dual role.
- 3 COMMISSIONER BYRON: Well, thank you.
- 4 And the reason I asked is because eight or ten
- 5 years ago, working in this business, there was a
- 6 great deal of interest in higher reliability
- 7 services. You know, we maintain a datacenter on
- 8 behalf of the government for a different reason
- 9 than the private sector might.
- 10 You know there were servers at Oracle,
- 11 when I was there, that were moving a billion
- dollars a day, or around there. And so the high
- reliability issues were pretty significant. I
- 14 remember writing a paper on this issue about ten
- 15 years ago.
- Of course, we anticipated that we would
- go for six-nines, you know, high reliability
- 18 electric power was the answer. But I think what
- 19 we found is exactly what the Energy Commission is
- 20 doing. It's a lot less expensive to mirror these
- 21 datacenters and to mirror the capabilities that
- 22 you need somewhere else --
- MR. DAVIS: Yes, sir.
- 24 COMMISSIONER BYRON: -- as a backup.
- 25 So, I was just very curious as to how long we've

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1 been doing it, because I think the rest of the
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- 2 industry figured it out about that time, as well,
- 3 that that's the right approach to take.
- 4 MR. DAVIS: Yes, sir.
- 5 COMMISSIONER BYRON: So, thank you for
- 6 indulging me on that question.
- 7 MR. DAVIS: Yes, sir.
- 8 VICE CHAIRPERSON BOYD: Any other
- 9 questions? Motion?
- 10 COMMISSIONER ROSENFELD: Atlas looks
- 11 like he wants to say something.
- 12 VICE CHAIRPERSON BOYD: Oh, excuse me.
- 13 MR. HILL: Actually, I was getting ready
- 14 to leave, but I will say --
- 15 COMMISSIONER BYRON: You have to come to
- the microphone, Atlas.
- MR. HILL: I'll be more than happy to,
- 18 sir. I just wanted to say that we are in five-
- 19 nines on that particular server.
- 20 VICE CHAIRPERSON BOYD: A motion.
- 21 COMMISSIONER BYRON: I move approval of
- 22 item 20.
- 23 COMMISSIONER ROSENFELD: I second it.
- 24 VICE CHAIRPERSON BOYD: A motion and a
- 25 second.

1	All in favor?
2	(Ayes.)
3	VICE CHAIRPERSON BOYD: Motion carries
4	four to nothing. Thank you, Mr. Smith.
5	Item 21 is our minutes, but I regret to
6	announce that a), item a), which has been
7	postponed in the past will have to be put over yet
8	again because we lack the appropriate number of
9	people here present today to approve the item. We
10	got two out of three, but we need the third.
11	So, all we have before us is minutes
12	listed under b), March 11, 2009.
13	COMMISSIONER ROSENFELD: I move item b).
14	COMMISSIONER LEVIN: Second it.
15	VICE CHAIRPERSON BOYD: A motion and a
16	second. And I have to glance again if yes, we
17	can all vote on this one. All right.
18	All in favor?
19	(Ayes.)
20	VICE CHAIRPERSON BOYD: Minutes are
21	approved.
22	Item 22, Commission Committee
23	presentations or discussions or what-have-you.
24	Does anybody have an item they would choose to

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COMMISSIONER BYRON: It's not a

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1 Committee presentation, Vice Chair Boyd, but I'd
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- 2 just like to point out that we just approved about
- 3 a few schekels short of \$9.5 million worth of
- 4 Commission work today.
- 5 VICE CHAIRPERSON BOYD: Is that a good
- 6 day's work?
- 7 COMMISSIONER BYRON: I don't think
- 8 that's a record, of course, much higher. But a
- 9 number of contracts. And our Executive Director
- 10 tells me that that may be because we're getting
- 11 close to year-end. But I suspect we'll see more.
- 12 But I thought it was rather significant.
- I don't recall one in my tenure that was quite
- 14 that big.
- That's all I wanted to say.
- 16 VICE CHAIRPERSON BOYD: I might mention
- 17 that Commissioner Byron and myself, both,
- 18 representing the Electricity and Natural Gas
- 19 Committee, which we happen to be both on it, and
- 20 maybe the Research Committee, yesterday attended
- 21 an event here in this building that we basically
- 22 helped sponsor, called the Third Annual Carbon
- 23 Capture and Sequestration Stakeholders Group.
- 24 We had President Peevey, ourselves, the
- 25 Director of Conservation, a representative of the

1 Chair of the Air Board, and the Secretary of

CalEPA, as well as a large number of interested

3 private sector and other government agencies

4 folks.

This was a meeting really hosted by both the PUC, ourselves, and the National Energy

Technology Laboratory. These are the people who financed our WESTCARB program for all of its three phases. And this was a continuation of discussions that started a couple of years ago on the whole concept of carbon capture and storage.

And I would just say that -- and this time we got the Director here. And we and he, I think, were very pleased with the conduct and the outcome of yesterday's meeting, spreading knowledge on the subject and expanding knowledge on the part of many many people, particularly the investor-owned utilities, some of whom have ventured into this arena. PG&E made a public announcement yesterday that they wanted to also, and they have heretofore not, done that.

I had suggested it be here in Sacramento so we could get more state agencies. And they were all informed and educated on the topic. And I think everybody walked away quite satisfied.

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1 And I got a commitment from all the state agencies
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- in the room that we'd get back together, just as
- 3 state agencies, to discuss this issue and maybe
- 4 try to speak with one voice and move the subject
- 5 forward.
- I took the Director over to meet with
- 7 Assemblyman Blakeslee later in the day, who is
- 8 passionately interested in this subject. And he
- 9 was very pleased with the discussion.
- 10 And as Commissioner Byron mentioned
- 11 earlier, he and I bumped into Assemblyman
- 12 Blakeslee at dinner last night, who talked to us
- even more about that subject and others.
- So, anyway, I think for a change --
- maybe not for a change, but we had a very good
- outcome and a lot of support for what we're doing.
- 17 And if there were any questions about our
- 18 capabilities to carry out WESTCARB or anything
- 19 about it, I know the Director is ecstatic in his
- 20 enthusiasm for this agency now.
- 21 So that was a good day's work, I
- thought.
- 23 COMMISSIONER BYRON: In fact, if I could
- 24 just add, comments directed toward our Executive
- 25 Director, I know you're concerned about resources

adding this particular item to the scope of IEPR

- 2 for this year. I detest when others do that, I
- 3 shouldn't do it either, to our Integrated Energy
- 4 Policy Report scope this year.
- 5 And I think yesterday's input was very
- 6 valuable; helped inform the Committee. And there
- 7 is some activity moving forward in this area,
- 8 despite the fact that it's certainly long-range
- 9 research that's going on.
- 10 So it was valuable input, I think. I
- 11 think it helped to serve, to some extent, as a
- workshop, which we have plenty of on the calendar
- 13 going forward.
- 14 VICE CHAIRPERSON BOYD: There were many
- 15 revelations. You just reminded me of one, perhaps
- 16 the most important, was from the whole audience I
- 17 think we finally severed the chain linkage between
- 18 carbon capture and sequestration and coal.
- I mean it's not the thing that's there
- 20 to save the coal power plant industry. It's got
- 21 multiple applications to industries, including
- 22 natural gas fired power plant operations, et
- cetera, et cetera.
- 24 So I thought that was a major success.
- 25 COMMISSIONER BYRON: Um-hum.

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1 VICE CHAIRPERSON BOYD: Okay.
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- 2 COMMISSIONER ROSENFELD: So you were
- 3 saying that there's interest from the gas fired
- 4 power plants, also?
- 5 VICE CHAIRPERSON BOYD: The gas fired
- 6 power plants, the refining industry saw the light
- 7 yesterday in terms of what they'll probably have
- 8 to do at refineries in the future.
- 9 One great revelation there was the
- incredible amount of CO2 that's released in
- 11 geothermal power plants. And so this quest for
- 12 renewables, including geothermal, probably we need
- 13 to take a second look at the geothermal component
- of it. It's not as clean as maybe perception
- 15 would have it.
- So on and so forth. So, things --
- 17 COMMISSIONER ROSENFELD: Where does the
- 18 CO2 come from geothermal?
- 19 VICE CHAIRPERSON BOYD: It just comes up
- 20 naturally with the steam, or hot water, in the
- 21 case of brine plants.
- 22 COMMISSIONER ROSENFELD: Well, I didn't
- 23 know any of that.
- VICE CHAIRPERSON BOYD: I didn't,
- 25 either.

1	COMMISSIONER BYRON: The conclusion I
2	took from it, Commissioner, is that not
3	necessarily that geothermal is bad.
4	VICE CHAIRPERSON BOYD: No.
5	COMMISSIONER BYRON: It's just that we
6	are going to have to address capture and
7	sequestration in just about every form of
8	generation technology that we're going to pursue
9	if we're going to be serious about reaching the
10	2050 goals.
11	COMMISSIONER ROSENFELD: Okay. Learned
12	something.
13	VICE CHAIRPERSON BOYD: Learned
14	something.
15	COMMISSIONER LEVIN: Seems to me the
16	take-away message is more energy efficiency.
17	VICE CHAIRPERSON BOYD: Um-hum.
18	COMMISSIONER LEVIN: In all stages.
19	VICE CHAIRPERSON BOYD: And we did press
20	upon these people repeatedly the loading order.
21	Any other presentations, comments?
22	Chief Counsel's report.
23	CHIEF COUNSEL CHAMBERLAIN: Thank you,
24	Mr. Chairman. I simply want to report that at the

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Commission's next business meeting I anticipate

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1 Assistant Chief Counsel Jonathan Blees will be
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- 2 joining you. I anticipate representing the
- 3 Commission that week at the meetings of the
- 4 Western Interstate Energy Board, the Western
- 5 Interconnection Regional Advisory body, and the
- 6 Committee on Regional Electric Power Cooperation.
- 7 I can send you all the agenda for those
- 8 meetings. I think one of the principal things
- 9 that we'll be talking about is the ongoing work of
- 10 the Western Governors Association to identify
- 11 renewable energy zones throughout the west. And
- the interest of the federal government in
- assisting the west in organizing an
- 14 interconnection-wide transmission expansion plan
- for those renewable energy resources.
- We anticipate having members of the
- 17 Federal Energy Regulatory Commission and the DOE
- 18 Staff at this meeting, along with industry and
- 19 obviously government representatives from the
- 20 various western states and provinces.
- 21 VICE CHAIRPERSON BOYD: Thank you, Mr.
- 22 Chamberlain. I look forward to your after-trip
- 23 reports --
- 24 COMMISSIONER BYRON: Yeah.
- VICE CHAIRPERSON BOYD: -- more

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1 anxiously than I do the agenda to the meetings.
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- 2 COMMISSIONER BYRON: I want --
- 3 VICE CHAIRPERSON BOYD: Keep up the good
- 4 work.
- 5 COMMISSIONER BYRON: -- I want both,
- 6 however. And we'll talk tomorrow. I'd also like
- 7 to thank you for not word-izing those acronyms,
- 8 but saying them all out for me.
- 9 VICE CHAIRPERSON BOYD: Acronym alphabet
- 10 soup.
- 11 Okay, thank you, Mr. Chamberlain.
- 12 Executive Director's report.
- 13 EXECUTIVE DIRECTOR JONES: I have
- 14 nothing to report today. And the Legislative
- Director doesn't have anything to report today.
- And the Public Adviser had to leave, and she said
- she doesn't have a report today.
- 18 VICE CHAIRPERSON BOYD: Thank you.
- 19 Public comment. Seeing no public, only
- 20 Sylvia back there in the back of the room keeping
- 21 up the image of an audience.
- We stand adjourned.
- 23 (Whereupon, at 11:59 a.m., the business
- 24 meeting was adjourned.)
- 25 --000--

CERTIFICATE OF REPORTER

I, PETER PETTY, an Electronic Reporter, do hereby certify that I am a disinterested person herein; that I recorded the foregoing California Energy Commission Business Meeting; that it was thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said meeting, nor in any way interested in outcome of said meeting.

IN WITNESS WHEREOF, I have hereunto set my hand this 3rd day of April, 2009.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345